

United States  
Circuit Court of Appeals  
For the Ninth Circuit.

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Transcript of Record.  
(IN THREE VOLUMES)

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MORSE S. DUFFIELD and LEWIS A. JEFFS,  
Appellants,  
vs.

SAN FRANCISCO CHEMICAL COMPANY,  
a Corporation,  
Appellee.

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VOLUME I.  
(Pages 1 to 304, Inclusive.)

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Upon Appeal from the United States District Court for  
the District of Idaho, Southern Division.

**FILED**

DEC 30 1912



No. 2203

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Circuit Court of Appeals

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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in *italic*; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in *italic* the two words between which the omission seems to occur. Title heads inserted by the Clerk are enclosed within brackets.]

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[Names and Addresses of Attorneys of Record.]

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Utah,

Attorneys for Appellants.

Messrs. CLARK & BUDGE, Pocatello, Idaho,  
Attorneys for Appellee.

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*United States Circuit Court of Appeals, Ninth  
Circuit.*

No. —.

MORSE S. DUFFIELD and LEWIS A. JEFFS,  
Complainants and Appellants,  
vs.

SAN FRANCISCO CHEMICAL COMPANY,  
Defendant and Appellee.

APPEAL FROM THE DISTRICT COURT OF  
THE UNITED STATES FOR THE DIS-  
TRICT OF IDAHO, SOUTHERN DIVISION.

Statement of the Errors on Which Appellants  
Intend to Rely and Specification of the Parts of  
the Record Which Appellants Think Necessary  
for Consideration Thereof.

I.

STATEMENT OF ERRORS ON WHICH  
APPELLANTS INTEND TO RELY.

1. Because the evidence showed that within the  
exterior boundaries of defendant's alleged placer  
mining claims, to wit, "Wilmington," "Col-

cock," "Inman," "Winfield," "Winter," "Wonder," "Winslow," and "Wizard," and each of them respectively, the only valuable mineral deposit therein contained is a solid body of mineral found in place in the mass of the mountain within clearly defined walls of a characteristic weight, color and texture, and has a definite dip and strike, and therefore the Court erred in decreeing the defendant to be the owner and entitled to the possession and occupancy of said alleged placer mining claims and each of them, and in not dismissing the cross-bill of complaint of the defendant and adjudging that said alleged placer mining claims and each of them were and are invalid.

2. Because the evidence showed that neither the defendant nor its predecessor in interest had initiated or maintained its said placer locations, to wit, "Wilmington," "Colcock," "Inman," "Winfield," "Winter," "Wonder," "Winslow," and "Wizard," or either or any of them, in compliance with the laws of the United States or the local regulations of the State of Idaho, in that the evidence showed that the ground covered by defendant's said placer locations and each of them, and the ground included within the complainants' lode locations, to wit, "Obey," "Obed," "Jimtown," "Fentress," "Cumberland," "Overton," "Mt. Pleasant," "Arkansas," "Hickman," "Columbia," and "Wayne," and each of them, including the conflict area between said lode and said placer locations was not subject to location, acquisition and purchase by means of placer locations, but only by lode locations; that the valuable mineral deposit contained within defendant's said



alleged placer mining locations and upon which such locations and each of them are solely based, is the one and only valuable mineral deposit therein contained and is the identical mineral deposit sought to be secured by the complainants by virtue of their said lode locations; that said valuable deposit is a solid body of mineral found in place within the mass of the mountain between clearly defined walls of a characteristic weight, color and texture, with definite dip and strike and continuity on dip and strike, and not otherwise; and, therefore, the Court erred in decreeing and holding that the defendant is the owner and entitled to the possession and occupancy of the area described in the decree in conflict between said defendant's placer locations and complainants' said lode locations by virtue of the compliance with the laws of the United States or of the State of Idaho, or otherwise, and in adjudging and decreeing the adverse claim of complainants based upon their said lode locations to the extent of the conflict area between said lode and said placer locations to be invalid or groundless, and in quieting the defendant's alleged title to said conflict area.

3. Because the evidence showed that the complainants had lawfully initiated and maintained their several lode locations, to wit, "Obey," "Obed," "Jimtown," "Fentress," "Cumberland," "Overton," "Mt. Pleasant," "Arkansas," "Hickman," "Columbia," and "Wayne," and each of them respectively, by full compliance with the laws of the United States and the local regulations of the State of Idaho; that the respective parties to this action are

each claiming respectively identically the same mineral deposit, the complainants by virtue of lode locations and the defendants by virtue of placer locations; that in the ground covered by such locations respectively, including the area in conflict, the valuable deposit consists of a solid mass of mineral found in place within clearly defined walls of a characteristic weight, color and texture, in the mass of the mountain with definite dip and strike and continuity on dip and strike, and contains no other valuable mineral deposit; and, therefore, the Court erred in not adjudging and decreeing that all of complainants' lode locations and each of them respectively were valid and that complainants were the owners and entitled to the possession of the conflict area with defendant's said placer locations, as prayed for in their amended bill of complaint herein and described therein and in said decree.

## II.

### SPECIFICATION OF THE PARTS OF THE RECORD WHICH APPELLANTS THINK NECESSARY FOR CONSIDERATION, AND TO BE PRINTED:

- (1) Amended Bill of Complaint, Record pages 1 to 12, both inclusive.  
Answer and Cross-Complaint, Record pages 13 to 26, both inclusive.  
Answer to Cross-Bill of Complaint, Record pages 27 to 36, both inclusive.  
Replications, Record pages 37 to 39, both inclusive.

Stipulation and Order thereon, Record pages 40 and 41, both inclusive.

- (2) Print all the testimony of Harry J. Pitts, Record pages 46 to 85, both inclusive.

Print all the testimony of Morse S. Duffield, Record pages 86 down to and including the words "separately marked," on the 16th line of Record page 101.

Omit all of Record page 101 after the words "separately marked" on line sixteen thereof, down to and including the word "deputy" on the 9th line of Record page 127 (containing certified copies of Location Notices).

Print all the testimony of Morse S. Duffield commencing with the tenth line on Record page 127 down to and including the first five lines of Record page 139.

Omit all of Record page 139, except the first five lines thereof, down to and including the words "proof read" on the third line from the top of Record page 165 (containing certified copies of Proofs of Annual Labor).

Print all the testimony of Morse S. Duffield commencing with the words "Cross-Examination" on the fifth line from the top on Record page 165 down to and including Record page 233.

Print all of the testimony of Charles Hoff, Record pages 234 to 270, both inclusive.

Omit testimony of Charles P. Brooks, Record pages 271 to 289, both inclusive.

Omit testimony of Charles Hoff, Record pages

290 to 292, both inclusive.

Omit Stipulation, Record page 293, covering the first twenty lines of said page.

Print all of the testimony of Guy Sterline, commencing with the sixth line from the bottom of Record page 293 to Record page 445 inclusive.

Print all of the testimony of William A. Wilson, Record page 446 down to and including Record page 486, both inclusive.

Omit all of Record pages 487 and 488 (containing exhibits of assays); also all of Record pages 489 and 490 (being certificate of notary).

- (3) Print Stipulation commencing with the ninth line of Record page 492 down to and including Record page 494.

Print all the testimony of Randolph H. Groo and other witnesses, together with all exhibits read into the record, commencing with Record page 495 down to and ending with Record page 897.

\*Omit Record pages 898 to 906, both inclusive (same being certified copies of Register's final receipts and certificate of special examiner).

Omit Record pages 907 to 915, both inclusive (being opinion on final hearing).

Print Record pages 916 to 922, both inclusive (decree); also Record pages 923 to 938, both inclusive (consisting of Petition for Appeal,

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\*Printed at request of counsel for appellee.



Assignment of Errors, Order Allowing Appeal, Bond on Appeal, Stipulation in re Transcript and Exhibits, Order re Exhibits and Maps, Citation, Return to Record and Clerk's certificate.

- (4) We would like reduced photographic copies of Plaintiff's Exhibit No. 1 and of Defendant's Exhibit No. 2 of appropriate size made and inserted at the back of printed transcript.
- (5) Omit from printed record all other exhibits.

Dated, November 25th, 1912.

A. B. GOUGH,  
C. B. JACK and  
CHARLES C. DEY,  
Solicitors for Appellants.

[Endorsed]: No. 2203. United States Circuit Court of Appeals for the Ninth Circuit. Appellants' Statement of Errors and Designation under Rule 23. Filed Nov. 29, 1912. F. D. Monckton, Clerk.

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**Appellee's Designation Under Rule 23 and Admission of Service of Appellants' Statement and Designation Under Rule 23.**

Pocatello, Ida., Nov. 27, 1912.

Hon. C. C. Dey,  
Kearns Building,  
Salt Lake City, Utah.

Dear Judge:

I enclose you herewith, duly signed, acknowledgment of service of statement of errors and specification of parts of the record which appellants think necessary for consideration of such errors. I find

in going over my copy of the transcript of the evidence that the paging does not conform to that mentioned by you in your specification, but from your letter I think that all parts of the record necessary to be printed have been designated save and except that I would be obliged if you would include the register's final certificates of entry. There are not many pages of them and I should like to have them go into the record, and I wish you would instruct the clerk to print them.

Yours truly,

JESSE R. S. BUDGE.

*United States Circuit Court of Appeals, Ninth Circuit.*

No. —.

MORSE S. DUFFIELD and LEWIS A. JEFFS,  
Complainants and Appellants,  
vs.

SAN FRANCISCO CHEMICAL COMPANY,  
Defendant and Appellee.

APPEAL FROM THE DISTRICT COURT OF  
THE UNITED STATES FOR THE DISTRICT  
OF IDAHO, SOUTHERN DIVISION.

Service of Statement of Errors upon which appellants intend to rely and specification of the parts of the record which appellants think necessary for consideration thereof, admitted this 27th day of November, A. D. 1912.

CLARK & BUDGE,  
Counsel for Appellee.

[Endorsed]: No. 2203. United States Circuit Court of Appeals for the Ninth Circuit. Appellee's Designation Under Rule 23 and Admission of Service of Appellants' Statement and Designation Under Rule 23. Filed Dec. 2, 1912. F. D. Monekton, Clerk.

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*In the Circuit Court of the United States in and for  
the District of Idaho, Southern Division.*

IN EQUITY—ACTION TO QUIET TITLE.

MORSE S. DUFFIELD and LEWIS A. JEFFS,  
Complainants,

vs.

SAN FRANCISCO CHEMICAL COMPANY,  
Defendant.

**Amended Bill of Complaint.**

To the Honorable the Judges of the Circuit Court of  
the United States in and for the District of  
Idaho:

MORSE S. DUFFIELD and LEWIS A. JEFFS,  
respectively, citizens of the State of Utah, bring this  
their Amended Bill of Complaint against the San  
Francisco Chemical Company, a corporation, organized  
and existing under the laws of the State of California,  
and a citizen of California, and thereupon  
your orators complain and allege:

I.

That your orators, and each of them, are citizens  
of the State of Utah, and at all the times hereinafter  
mentioned have been citizens of the United States.

## II.

That said defendant is a corporation created and existing [1\*] under and by virtue of the laws of the State of California and is a citizen of the State of California.

## III.

That the value or amount of the matter in controversy herein exceeds the sum of Two Thousand Dollars (\$2,000.00), exclusive of interest and costs.

## IV.

That your orators since on or about the 15th day of November, 1907, have been and now are the owners in the possession and entitled to the possession of the following lode mining claims, and each of them, situate in an unorganized mining district, County of Bear Lake, and State of Idaho, to wit: "Cumberland," "Fentress," "Jintown," "Obed," "Obey," "Mt. Pleasant," "Arkansas," and "Overton," known as the "Cumberland Group" and officially surveyed for patent as U. S. Survey No. 2538, and more particularly described upon the plat hereto annexed and made a part of this Bill of Complaint; also the "Hickman," "Columbia" and "Wayne" lodes, the same being more particularly described upon the plat hereto annexed and marked Exhibit "B" and made a part hereof.

## V.

Your orators further allege that they have and claim a legal right to occupy and possess said lode mining claims and each of them, and are entitled to the possession thereof by virtue of full compliance

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\*Page-number appearing at foot of page of original certified Record.



with the local laws and rules of miners, the laws of the United States and of said State of Idaho by pre-emption and by actual possession as lode mining claims located on the public domain of the United States.

## VI.

Your orators further allege that on, to wit, the 11th day [2] of August, A. D. 1910, the said defendant made its application to the United States land office at Blackfoot, in said District of Idaho, for a patent for certain pretended placer mining claims called the "Wilmington," "Colcock," "Winfield," "Inman," "Winter," "Wonder," "Winslow" and "Wizard," and thereupon caused notice to be published, that in and by its said application so made said defendant wrongfully included all of your orators' said "Cumberland," "Fentress," "Jimtown," "Obed," "Obey," "Overton," and a portion of your orators' said "Mt. Pleasant," "Arkansas," "Hickman," "Columbia," and "Wayne" lode mining claims; as shown by plats filed on the 8th day of October, A. D. 1910, in the land office of the United States at Blackfoot, in said State of Idaho, with the adverse claim of your orators, duly verified, against the entry of said pretended "Wilmington," "Colcock," "Winfield," "Inman," "Winter," "Wonder," "Winslow" and "Wizard" placer mining claims. That attached to the original Bill of Complaint herein are copies of said plats so filed as aforesaid, and correctly show the nature, boundaries and extent of your orators' aforesaid lode mining claims and each of them, and

of the aforesaid adverse claims, to which reference is hereby made.

## VII.

Your orators further show that its said adverse claim was filed in said land office within the period of sixty (60) days of the publication of notice for application for patent for said pretended "Wilmington," "Colcock," "Winfield," "Inman," "Winter," "Wonder," "Winslow" and "Wizard" placer mining claims, and this suit is brought before the expiration of the period of thirty (30) days after the filing of said adverse claim.

## VIII.

That said pretended "Wilmington," "Colcock," "Winfield," "Inman," "Winter," "Wonder," "Winslow," and "Wizard" placer mining [3] claims, conflict with said "Cumberland," "Fentress," "Jimtown," "Obed," "Obey," "Overton," "Mt. Pleasant," "Arkansas," "Hickman," "Columbia" and "Wayne" lode mining claims to the extent of 148,416 acres. The conflict in the lines of said pretended placer claims, and each of them, is fully shown and described by the said plats annexed to the original bill of complaint, herein, and marked exhibits "A" and "B." That the exterior boundaries of the ground in conflict as aforesaid being described as follows, to wit:

(a) Beginning at corner No. 1 of the Cumberland lode claim, according to said official survey No. 2538, which is identical with corner No. 1 of the Overton lode claim, and from said common and identical corner the  $\frac{1}{4}$  section corner of the south boundary of

section 31, township 12 south, range 45 east, Boise base and meridian, bears south 35 degrees 28 minutes east 182.3 feet; thence running from said common and identical corner aforesaid south 42 degrees 07 minutes west 1374 feet to the intersection with line 4-1 of the Mt. Pleasant lode claim; thence north 49 degrees 43 minutes east 1346.6 feet to corner No. 1 of the Mt. Pleasant lode claim, which is identical with the aforesaid  $\frac{1}{4}$  section corner; thence south 30 degrees 51 minutes east 600 feet to corner No. 2 of the Mt. Pleasant lode claim; thence south 49 degrees 44 minutes west 12.7 feet to intersection with line 1-2 of the Arkansas lode claim; thence south 57 degrees 49 minutes east 823.9 feet to intersection with the easterly side line of the so-called Wizard placer claim; thence south along said easterly side line of said so-called Wizard placer claim 545.3 feet to intersection with line 3-4 of the Arkansas lode claim; thence south 31 degrees 22 minutes west 530.8 feet to corner No. 4 of the Arkansas lode claim; thence north 57 degrees 49 minutes west 453.8 feet to intersection with the westerly side line of the so-called Wizard placer claim; thence north along said westerly side line of [4] said so-called Wizard placer claim 162.2 feet to intersection with line 5-6 of the Arkansas lode claim, thence north 55 degrees 01 minute east 257.6 feet to corner No. 6 of the Arkansas lode claim; thence north 16 degrees 15 minutes west 915.5 feet to intersection with line 2-3 of the Mt. Pleasant lode claim; thence south 49 degrees 44 minutes west 1263.4 feet to intersection with subdivision line between lot 3 and the southeast  $\frac{1}{4}$  of the north-

west  $1/4$  of section 6, township 13 south, range 45 east, Boise base and meridian; thence along said subdivisional line south 89 degrees 51 minutes west 215.2 feet to intersection with line 3-4 of the Mt. Pleasant lode claim; thence north 30 degrees 51 minutes west 459.2 feet to corner No. 4 of the Mt. Pleasant lode claim; thence north 49 degrees 43 minutes east 6.7 feet to intersection with line 2-3 of the Overton lode claim; thence north 45 degrees 22 minutes west 507.8 feet to corner No. 3 of the Overton lode claim; thence north 39 degrees 13 minutes east 1499.9 feet to corner No. 4 of the Overton lode claim which is identical with corner No. 2 of the Cumberland lode claim; thence north 41 degrees 08 minutes east 1461.5 feet to corner No. 3 of the Cumberland lode claim which is identical with corner No. 2 of the Fentress lode claim; thence north 12 degrees 42 minutes east 694 feet to intersection with line 1-2 of the Jimtown lode claim; thence south 77 degrees 43 minutes west 158.8 feet to corner No. 2 of the Jimtown lode claim; thence north 14 degrees 17 minutes west 1421 feet to corner No. 3 of the Jimtown lode claim which is identical with corner No. 2 of the Obed lode claim; thence north 22 degrees 56 minutes west 1492.2 feet to corner No. 3 of the Obed lode claim which is identical with corner No. 2 of the Obey lode claim; thence north 17 degrees 09 minutes west 1491.8 feet to corner No. 3 of the Obey lode claim; thence north 77 degrees 43 minutes east 600 feet to corner No. 4 of the Obey lode claim, thence south 14 degrees 29 minutes east 1487.4 feet to corner No. 1 of the Obey lode claim, [5] which is



identical with corner No. 4 of the Obed lode claim and from said common and identical corner the aforesaid  $1/4$  section corner bears south 0 degrees 08 minutes west 5178.2 feet; thence running from said common and identical corner aforesaid south 24 degrees 28 minutes east 1500.4 feet to corner No. 1 of the Obed lode claim which is identical with corner No. 4 of the Jintown lode claim and from said common and identical corner the aforesaid  $1/4$  section corner bears south 9 degrees 26 minutes west 3864.9 feet; thence running from said common and identical corner south 14 degrees 53 minutes east 775 feet to intersection with line 3-4 of the Fentress lode claim; thence south 45 degrees 22 minutes east 523.7 feet to corner No. 4 of the Fentress lode claim; thence south 15 degrees 07 minutes west 1465.5 feet to corner No. 1 of the Fentress lode claim which is identical with corner No. 4 of the Cumberland lode claim and from said common and identical corner the aforesaid  $1/4$  section corner bears south 32 degrees 44 minutes west 1522.8 feet; thence running from said common and identical corner aforesaid south 39 degrees 23 minutes west 1465 feet to the place of beginning. From corner No. 1 of the Jintown lode claim the aforesaid  $1/4$  section corner bears south 22 degrees 17 minutes west 2635.5 feet, and from corner No. 1 of the Arkansas lode claim said  $1/4$  section corner bears north 29 degrees west 589.3 feet. Said conflict area containing 142.044 acres.

(b) Beginning at corner No. 3 of the Hickman lode claim from which post No. 2 of said Hickman

lode claim bears north 6 degrees 37 minutes west 258 feet and from said post No. 2 of the Hickman lode claim post No. 1 of said Hickman lode claim bears south 83 degrees 15 minutes west 50 feet; whence the 1/4 section corner on the south [6] boundary of section 31, township 12 south, range 45 east, Boise base and meridian, bears north 7 degrees 14 minutes west 2032 feet; thence running from said corner No. 3 aforesaid north 83 degrees 23 minutes east 239.9 feet to corner No. 4 of the Hickman lode claim; thence south 0 degrees 31 minutes east 991.6 feet to corner No. 5 of the Hickman lode claim; thence south 83 degrees 23 minutes west 248.9 feet to corner No. 6 of the Hickman lode claim; thence north along the westerly side line of the so-called Wizard placer claim 992.6 feet to corner No. 3 of the Hickman lode claim and being the place of beginning. Said conflict area containing 5.532 acres.

(c) Beginning at corner No. 4 of the Columbia lode claim and running thence south 44 degrees 29 minutes west 29.4 feet to intersection with line 1-2 of the Wayne lode claim, said point of intersection being south 62 degrees 08 minutes east 25 feet from corner No. 1 of the Wayne lode claim from which the 1/4 section corner on the south boundary of section 31, township 12 south, range 45 east, Boise base and meridian, bears north 3 degrees 17 minutes west 5503.9 feet; thence north 62 degrees 08 minutes west 1.8 feet to intersection with westerly side line of the so-called Wizard placer claim; thence north along the westerly side line of the so-called Wizard placer claim 25.1 feet to point of intersection with line 3-4

of the Columbia lode claim; thence south 77 degrees 22 minutes east along said line 3-4 of the Columbia lode claim 22.7 feet to the place of beginning. Said conflict area containing 0.007 acres.

(d) Beginning at corner No. 2 of said Wayne lode claim, which is south 62 degrees 08 minutes east 50 feet from corner No. 1 of said Wayne lode claim, and from said corner No. 1 the  $\frac{1}{4}$  section corner [7] on the south boundary of section 31, township 12 south, range 45 east, Boise base and meridian, bears north 3 degrees, 17 minutes west 5503.9 feet; thence running from corner No. 2 aforesaid south 27 degrees 52 minutes west 50.8 feet to intersection with westerly side line of the so-called Wizard placer claim; thence north along the westerly side line of the so-called Wizard placer claim 57.4 feet to intersection with line 1-2 of the Wayne lode claim; thence south 62 degrees 08 minutes east 26.8 feet to corner No. 2 of the Wayne lode claim and being the place of beginning. Said conflict area containing 0.016 acres.

(e) Beginning at the point of intersection of line 7-8 of said Wayne lode claim with the westerly side line of the so-called Wizard placer claim, said point of intersection being south 52 degrees 54 minutes east 274.5 feet from corner No. 8 of the Wayne lode claim, which said corner No. 8 is south 27 degrees 52 minutes west 425 feet from corner No. 1 of said Wayne lode claim, whence the  $\frac{1}{4}$  section corner on the south boundary of section 31, township 12 south, range 45 east, Boise base and meridian bears north 3 degrees 17 minutes west 5,503.9 feet; thence running from said point of intersection aforesaid north along the west-

erly side line of the so-called Wizard placer claim 62.6 feet to intersection of line 3-4 of the Wayne lode claim with the westerly side line of the said so-called Wizard placer claim; thence south 52 degrees 54 minutes east 236.2 feet to corner No. 4 of the Wayne lode claim; thence south 12 degrees 57 minutes east 519.1 feet to intersection of line 4-5 of the Wayne lode claim with the south line of said so-called Wizard placer claim; thence south 89 degrees 51 minutes west along said south line of said so-called Wizard placer claim 51.2 feet to intersection of line 6-7 of the Wayne lode claim with south line of said so-called Wizard placer [8] claim; thence north 12 degrees 57 minutes west 489.6 feet to corner No. 7 of the Wayne lode claim; thence north 52 degrees 54 minutes west 180.5 feet to the place of beginning. Said conflict area containing 0.817 acres.

## IX.

That said defendant asserts and claims an interest in said premises and the ores and minerals therein contained. That the alleged claims and assertions of said defendant are false and untrue and unfounded in fact, and cast a cloud upon the title and possession of your orators to said above-described premises and to the whole and each and every part thereof.

## X.

Your orators further allege that said defendant sometimes alleges and pretends that under the act of Congress relating to the acquisition from the United States of lands valuable for minerals, the mineral deposit found and existing within the exterior boundaries of your orators' said lode mining claims, and



each of them, is not subject to location, acquisition and patent under the provisions of the laws of the United States for acquiring veins or lodes of quartz or other rock in place bearing valuable deposits of mineral, but, on the contrary, is subject only to location and acquisition under the laws of the United States in the manner provided for acquiring placer mining claims or deposits, because the mineral deposit is of sedimentary origin and the sole element of value in the vein is phosphorus; and at other times said defendant alleges and pretends that it is and has been in possession of the conflict area hereinbefore described under and by virtue of its said pretended placer locations, and that your orators by virtue of said lode mining claims and the compliance by them with [9] the laws of the United States and the laws, rules and regulations of the State of Idaho, and of miners, are not in possession or entitled to the possession of their said lode mining claims, or either of them, and particularly to the extent the said lode mining claims, or each of them, conflict with the defendant's pretended placer locations aforesaid.

WHEREAS, your orators charge the contrary thereof to be the truth and allege that within the exterior boundaries to your orators' said lode mining claims, and each of them, there is a vein or lode of mineral-bearing rock in place, containing prosphorite and valuable only for the said mineral contents thereof. That said vein or lode in its course and strike extends nearly parallel to the side lines of your orators' said lode mining claims, and each of them, and throughout the entire length thereof, and lies

in place in the mountain between true walls and has a well-defined dip and strike; that neither within the exterior boundaries of your orators' said lode mining claims, and each of them, nor within the exterior boundaries of defendant's pretended placer mining claims, or either or them, nor within the aforesaid conflict area between your orators' said lode mining claims, and each of them, and said defendant's said pretended placer mining claims, and each of them, there is no form of mineral deposit excepting said vein or lode, containing phosphorite in place, between defined walls and with defined dip and strike, and no mineral deposit subject to location, entry and patent as placer mining claims, under the laws of the United States, as your orators are advised, informed and believe.

That your orators, without opposition from the defendants herein, or otherwise, peaceably and in good faith, entered upon said veins or lodes and made their several lode locations aforesaid, and performed all the acts required by law to acquire and maintain their said lode mining claims and each of them, as hereinbefore alleged, and [10] that to the extent of their aforesaid lode claims and each of them, including the aforesaid conflict areas, the said defendant has had, and has, no lawful right to the possession of the same, or any part thereof, but, on the contrary, your orators, by virtue of their full compliance with the laws of the United States and the local laws and regulations, have been and now are in the possession and entitled to the exclusive possession of their said lode mining claims, and each of them, including said

conflict areas hereinbefore described.

In consideration whereof, and forasmuch as your orators have no sufficient remedy at law for the wrongs done and threatened to be done, and that the remedy at law is inadequate and can afford no protection to your orators against the wrongful and unlawful claims and assertions of said defendant for the reasons hereinbefore stated, and is only relievable in a court of equity, where matters of this kind are properly cognizable and reviewable.

Your orators, to the end that they may obtain the relief to which they are justly entitled in the premises:

First. Pray that said defendant make a full disclosure and discovery of all the matters aforesaid, and according to the best and utmost of its remembrance, knowledge, information and belief full, true and perfect answer make to the matters hereinbefore stated and charged, but not under oath, an answer under oath being expressly waived.

Second. That it be required to set forth any and every adverse claim, interest or demand in and to the above-described conflict area and premises hereinbefore described, to the end that the same may be justly adjudicated and declared null and void as against your orators, and that the title, ownership and possession and right of possession of your orators in and to said "Cumberland," "Fentress," [11] "Jimtown," "Obed," "Obey," "Mt. Pleasant," "Arkansas" and "Overton," and the "Hickman," "Columbia" and "Wayne" lode mining claims, including said conflict area hereinbefore described, be established and

confirmed as against any and all claims of the said defendant, and all clouds thereon forever removed.

Third. That your orators have such other and further relief as the equity of the case may require and as to your Honors may seem meet, and for their costs of suit in this behalf most wrongfully expended.

A. B. GOUGH,

C. B. JACK,

A. L. HOPPAUGH and

CHARLES C. DEY,

Solicitors for Complainants.

United States of America,

District of Utah,

County of Salt Lake,—ss.

Morse S. Duffield, being first duly sworn, deposes and says: That he is one of the complainants herein, that he has read the above and foregoing Amended Bill of Complaint and knows the contents thereof; that the same is true of his own knowledge except as to those matters therein stated upon information and belief and as to those matters he believes it to be true.

MORSE S. DUFFIELD.

Subscribed and sworn to before me this 20th day of December, A. D. 1910.

[Not. Seal]

ARTHUR E. MORTON,

Notary Public.

[Endorsed]: Filed Dec. 22, 1910. A. L. Richardson, Clerk. [12]

*In the Circuit Court of the United States for the District of Idaho, Southern Division.*

IN EQUITY.

MORSE S. DUFFIELD and LEWIS A. JEFFS,  
Plaintiffs,

vs.

SAN FRANCISCO CHEMICAL COMPANY, a  
Corporation,  
Defendant.

**Answer and Cross-Complaint.**

This defendant now and at all times hereafter saving to itself all and all manner of benefit of exception or otherwise, that can or may be had or taken to the many errors, uncertainties and imperfections in complainants' bill of complaint contained, for answer thereto, or so much thereof as this defendant is advised it is material or necessary for it to make answer to, answering says:

I.

Admits the allegations contained in paragraph one.

II.

Admits the allegations contained in paragraph two.

III.

Admits the allegations contained in paragraph three. [13]

IV.

Denies that complainants since on or about the 15th day of November, 1907, or at any other time since said date, have been or that they now are the owners, or in the possession or entitled to the posses-



sion of the alleged lode mining claims, or any or either of them, situate in an unorganized mining district, County of Bear Lake, State of Idaho, to wit: "Cumberland," "Fentress," "Jimtown," "Obed," "Obey," "Mount Pleasant," "Arkansas," and "Overton," known as the "Cumberland Group," and particularly described upon the plat annexed to complainants' bill of complaint; or that complainants at any time since said date have been or now are the owners, or in the possession, or entitled to the possession of the "Hickman," "Columbia" and "Wayne" alleged lodes, or any or either of them, the same being situate in the said unorganized mining district, and being more particularly described upon the plat annexed to said bill of complaint and marked exhibit "B." But this defendant alleges the facts to be in that regard that at all times since said date, and particularly at the time of the commencement of this action, it, the said defendant, was and now is in the exclusive possession of the entire area alleged to be in conflict as stated in complainants' said bill of complaint, and as shown by the said plats attached thereto.

## V.

Denies that complainants have a legal right to occupy or possess said alleged lode mining claims, or any or either of them, or that they are entitled to the possession thereof by virtue of full compliance with the local laws and rules of miners, or the laws of the United States, or of the State of Idaho, by pre-emption or by actual possession as lode mining claims located on the public domain of the United States, or

otherwise, or at all.

## VI.

Answering paragraph six defendant admits that on, to wit, the 11th day of August, 1910, it made its application to the United States Land Office at Blackfoot, in said District of Idaho, for a patent for certain placer mining claims called the "Wilmington," [14] "Colcock," "Winfield," "Inman," "Winter," "Wonder," "Winslow" and "Wizard," and thereupon caused notice to be published. Denies that in or by its said application so made defendant wrongfully included all or any part or parcel of complainants' said alleged lode mining claims "Cumberland," "Fentress," "Jintown," "Obed," "Obey" and "Overton," or any portion of complainants' said "Mount Pleasant," "Arkansas," "Hickman," "Columbia" and "Wayne" alleged lode mining claims, or any portion of any or either of them, as shown by the plats filed on the 8th day of October, 1910, in the Land Office of the United States at Blackfoot in said State of Idaho, with the adverse claims of complainants against the entry of said "Wilmington," "Colcock," "Winfield," "Inman," "Winter," "Wonder," "Winslow" and "Wizard" placer mining claims.

Further answering said paragraph six, defendant says that it has no knowledge or information sufficient to form a belief as to the truth or falsity of the allegations contained in the last sentence of said paragraph, and basing its denial upon that ground, denies that attached to the original bill of complaint herein are copies of said plats so filed in the Land Office as

aforesaid, or that said plats, or alleged copies attached to said bill of complaint, correctly show the nature or boundaries or extent of 'complainants' aforesaid alleged lode mining claims, or any or either of them, or of complainants' adverse claims.

#### VII.

Admits the allegations contained in paragraph seven.

#### VIII.

This defendant does not know and has not sufficient information on which to base a belief as to the matters alleged in paragraph eight, and basing its denial [15] upon that ground, defendant denies that its said "Wilmington," "Colcock," "Winfield," "Inman," "Winter," "Wonder," "Winslow" and "Wizard" placer mining claims conflict with said "Cumberland," "Fentress," "Jimtown," "Obed," "Obey," "Overton," "Mount Pleasant," "Arkansas," "Hickman," "Columbia," and "Wayne" alleged lode mining claims to the extent of 148.516 acres or to any other extent or at all. Upon the same ground denies that the alleged conflict in the lines of said placer claims, and each of them, with said alleged lode mining claims is fully or otherwise shown or described by said plat annexed to the original bill of complaint herein, marked exhibits "A" and "B." Upon the same ground denies that the exterior boundaries of the ground alleged in said bill of complaint to be in conflict are as set forth in subdivisions "A," "B," "C," "D" and "E" of said paragraph eight.

#### IX.

Admits that defendant asserts and claims an in-



terest in said premises, and to the ores and minerals therein contained, but denies that the claims and assertions of said defendant are false or untrue, or unfounded in fact, or that they cast a cloud upon the title or possession of complainants to said premises described in said bill, or to the whole or to each or any part thereof.

## X.

Answering paragraph ten, defendant admits that it alleges and claims that under the Act of Congress relating to the acquisition from the United States of lands valuable for minerals, the mineral deposits found and existing within the exterior boundaries of complainants' said alleged lode mining claims, and each of them, is not subject to location, acquisition or patent [16] under the provisions of the laws of the United States for acquiring veins or lodes of quartz or other rock in place bearing valuable deposits of mineral, but, on the contrary, is subject only to location and acquisition under the laws of the United States in the manner provided for acquiring placer mining claims, or deposits, because the mineral deposit is of a sedimentary origin, and the principal (not the sole) element of value therein is phosphorous; but alleges that it also makes said claims because said deposit is not in the form of a vein or lode.

Further answering said paragraph ten, defendant admits that it alleges and claims that it is and has been in possession of the alleged conflict areas described in said bill of complaint under and by virtue of its said placer locations, and that complainants are

not by virtue of their alleged compliance with the laws of the United States, or the laws, rules or regulations of the State of Idaho, or of miners or otherwise, in possession or entitled to the possession of their said alleged lode mining claims, or any or either of them, or to any part or parcel of any or either of them wherein they conflict with defendant's said placer locations.

Further answering said paragraph ten, defendant denies that within the exterior boundaries of complainants alleged lode mining claims, or any or either of them, there is a vein or lode of mineral-bearing rock in place containing phosphorite, and valuable only for said mineral contents thereof; denies that said alleged or any vein or lode in its course or strike extends nearly parallel to the alleged side lines of complainants' said alleged lode mining claims, or any or either of them, or throughout the entire length thereof, or lies in place in the mountain between true walls, or has a well-defined dip or strike. Denies that neither within the exterior [17] boundaries of complainants' said alleged lode mining claims or either of them, nor within the exterior boundaries of defendant's said placer mining claims, or either of them, nor within the alleged conflict areas between said alleged lode mining claims, and each of them, and defendant's said placer mining claims and each of them, there is no form of mineral deposit excepting said vein or lode containing phosphorite in place between defined walls, and with defined dip and strike, and no mineral deposit subject to location, entry and patent as placer mining claims under the

laws of the United States.

Further answering paragraph ten, defendant denies that complainants without opposition from defendant, peaceably or in good faith entered upon said alleged veins or lodes, or in such manner or otherwise made their several alleged lode locations aforesaid, or performed all or any of the acts required by law to acquire or maintain their said alleged lode mining claims, or any or either of them as in said bill of complaint alleged, or that to the extent of their said alleged lode claims, or any or either of them, including the said alleged conflict areas, the said defendant has had or has no lawful right to the possession of the same, or any part thereof, but defendant alleges in this regard that its claims to the premises within the boundaries of said placer mining claims, including said alleged conflict areas, are as hereinafter set forth in its cross-complaint; defendant denies that by virtue of their full compliance with the laws of the United States, or the local laws and regulations, or otherwise, complainants have been or now are in the possession or entitled to the exclusive possession, or to the possession at all of their said alleged lode mining claims, or any or either of them, including said alleged conflict areas described in said bill of complaint. [18]

### **Cross-Complaint.**

For cross-complaint and affirmative relief your orator, the San Francisco Chemical Company, a corporation organized and existing under the laws of the State of California, and a citizen of said State of California, respectfully shows to the Honorable

Judges of the Circuit Court of the United States in and for the District of Idaho:

I.

That your orator is a corporation organized and existing under the laws of the State of California, and a citizen of said State of California.

II.

That said complainants, Morse S. Duffield and Lewis A. Jeffs, and each of them, are citizens of the State of Utah, and as your orator is informed and believes, and therefore alleges, are residents of Salt Lake City in said State.

Your orator further alleges that counsel of record and the solicitors for said complainants are, A. B. Gough, Esq., Montpelier, Idaho, and C. B. Jack, A. L. Hoppaugh and C. C. Dey of Salt Lake City, Utah.

III.

That the value or amount of the matter in controversy herein exceeds the sum of Two Thousand Dollars, exclusive of interest and costs.

IV.

That from on or about the 8th day of July, 1904, to on or about the 28th day of August, 1906, William S. Goodfellow, Hugh Goodfellow, Arthur W. Goodfellow, R. W. Hart, John Shepard Eells, H. L. Atkinson, Richard M. [19] Lyman and Joseph J. Taylor, the predecessors in interest of your orator, were the owners in fee (except only as against the paramount title of the United States) in possession and entitled to the possession of the following named placer mining claims, and each of them, situate in the unorganized mining district of Bear Lake



County, State of Idaho, to wit:

"Winfield," described as follows, to wit: The northeast quarter of Section Thirty-one (31), Township Twelve (12) South, Range Forty-five (45) East, Boise Meridian.

"Winter," described as follows, to wit: The southeast quarter of Section Thirty-one (31), Township Twelve (12) South, Range Forty-five (45) East, Boise Meridian.

"Wonder," described as follows, to wit: The southwest quarter of Section Thirty-one (31), Township Twelve (12) South, Range Forty-five (45) East, Boise Meridian.

"Winslow," described as follows, to wit: The north half of northwest quarter of Section Six (6), Township Thirteen (13) South, Range Forty-five (45) East, Boise Meridian, consisting of Lots 3 and 4 of Section Six (6), Township Thirteen (13) South, Range Forty-five (45) East, Boise Meridian.

And your orator further alleges that from on or about the 22d day of August, 1904, to on or about the 28th day of August, 1906, said above-named predecessors in interest of your orator were also the owners in fee (except only as against the paramount title of the United States), in possession and entitled to the possession of the following named placer mining claim situate in said unorganized mining district of Bear Lake County, Idaho, to wit: [20]

"Wilmington," described as follows, to wit: The southeast quarter of Section Thirty (30), Township Twelve (12) South, Range Forty-five East, Boise Meridian.



## V.

That from on or about the 11th day of June, 1904, to on or about the 28th day of August, 1906, Charles C. Jones, E. C. Jones, M. C. King, L. P. King, M. J. Bringier, C. O. McLaughlin, N. K. McLaughlin and J. T. Bringier, the predecessors in interest of your orator, were the owners in fee (except only as against the paramount title of the United States), in possession and entitled to the possession of the following named placer mining claims, and each of them, situate in the unorganized mining district of Bear Lake County, State of Idaho, to wit:

“Colcock,” described as follows, to wit: The southwest quarter of Section Thirty (30), Township Twelve (12) South, Range Forty-five (45) East, Boise Meridian.

“Inman,” described as follows, to wit: The northwest quarter of Section Thirty-one (31), Township Twelve (12) South, Range Forty-five (45) East, Boise Meridian.

## VI.

That from on or about the 3d day of December, 1905, to on or about the 8th day of April, 1910, William S. Goodfellow, Hugh Goodfellow, Joseph J. Taylor, R. W. Hart, John Shepard Eells and Richard A. Sullivan, the predecessors in interest of your orator, were the owners in fee (except only as against the paramount title of the United States), in possession and entitled to the possession of the following named placer mining claim, to wit:

“Wizard,” described as follows, to wit: The west half of the northwest quarter of the northeast quar-

ter, [21] consisting of the west half of Lot 2, and the west half of the southwest quarter of the northeast quarter and the west half of the west half of the southeast quarter, all of Section Six (6), Township Thirteen (13) South, Range Forty-five (45) East, Boise Meridian; and the west half of the northwest quarter of the northeast quarter of Section Seven (7), Township Thirteen (13) South, Range Forty-five (45) East, Boise Meridian.

#### VII.

That said predecessors in interest, respectively, of your orator, had and claimed a legal right to occupy and possess said placer mining claims, and each of them, and were entitled to the possession thereof during the respective periods aforesaid by virtue of the discovery of beds or deposits of carbonaceous limestone and lime phosphate within the boundaries of each of said claims, and by virtue of full compliance with the local laws and rules of miners, the laws of the United States, and of the State of Idaho, by pre-emption and by actual possession as placer mining claims located on the public domain of the United States.

#### VIII.

That since on or about the said 28th day of August, 1906, your orator has been and now is the owner in fee (except only as against the paramount title of the United States), and at all times since said date has been and now is in the exclusive possession and entitled to the possession of said "Winfield," "Winter," "Wonder," "Winslow," "Wilmington," "Colcock" and "Inman" placer mining claims herein-

before described, and each of them, and the whole and every part and parcel thereof. And that since on or about the 13th day of April, 1910, your orator has been and now is the owner in fee (except only as against the paramount title of the [22] United States), and at all times since said date has been and now is in the exclusive possession and entitled to the possession of said "Wizard" placer mining claim hereinbefore described, and the whole thereof; and your orator has and claims a legal right to occupy and possess said placer mining claims, and each of them: (a) By virtue of deeds of conveyance of date of August 28, 1906, conveying all of said placer mining claims except the said "Wizard" placer mining claim, and by virtue of deeds of conveyance executed April 8, 1910, April 11, 1910, and April 13, 1910, conveying said "Wizard" placer mining claim, all of which said deeds were executed to your orator by its said predecessors in interest, the respective locators of said claims, and conveying to your orator all the right, title and interest of said locators and predecessors in interest in and to said above described mining claims, and each of them; and said deeds were duly acknowledged so as to entitle the same to be recorded, and the same were duly recorded, and are now of record in the office of the County Recorder of Bear Lake County, State of Idaho; (b) By virtue of full compliance with the local laws and rules of miners, the laws of the United States, and of the State of Idaho, and by actual possession as placer mining claims located on the public domain of the United States.

IX.

Your orator further alleges that complainants, Morse S. Duffield and Lewis A. Jeffs, assert and claim an interest in the premises hereinbefore described, and to the ores and minerals therein contained, which said claim is false, untrue and unfounded in fact and casts a cloud upon the title and possession of your orator to the said above described premises; that said complainants base their said claim upon the wrongful assertion that the [23] deposit or bed of carbonaceous limestone and lime phosphate contained within the boundaries of your orator's said placer mining claims is not subject to location as placer, but, on the contrary, is subject to location as lode only, which assertion your orator alleges is unfounded in fact. Your orator further alleges that the deposits found within the boundaries of your orator's said placer mining claims, and each of them, consists of sedimentary formations or beds of phosphoric limestone, and said deposits are not in the form of a lode or vein, and that there is no mineral found within the limits of said placer mining claims, or any or either of them in the form of a vein or lode, or that is subject to location and acquisition under the laws of the United States by virtue of lode locations.

WHEREFORE, defendant and cross-complainant having fully answered, confessed, traversed and avoided or denied all the matters in complainants' said bill of complaint material to be answered, according to its best knowledge or belief, all of which matters and things this defendant is ready and will-



ing to aver, maintain and prove as this Honorable Court shall direct, and having cross-complained against complainants as aforesaid, humbly prays:

First: That as to said complainants' bill this defendant be hence dismissed with its reasonable costs and charges in this behalf most wrongfully sustained.

Second: That upon its said cross-complaint may it please your Honors to grant unto your orator a writ or writs of subpoena issued out of this court, and under its seal directed to said Morse S. Duffield and Lewis A. Jeffs, complainants herein, commanding them to appear herein and to show, if they can, why your orator, San Francisco Chemical Company, should not have the relief prayed, and make a full disclosure and discovery of all [24] the matters aforesaid and according to the best and utmost of their remembrance, knowledge, information and belief, full, true and perfect answer make to the matters in said cross-complaint stated and charged, but not under oath, an answer under oath being expressly waived. And inasmuch as said complainants are nonresidents of the State of Idaho, your orator prays that an order be immediately made and entered herein directing the Marshal of this District, or of the District of Utah, to serve the writ or writs of subpoena when issued herein upon said complainants Morse S. Duffield and Lewis A. Jeffs by substituted service thereof upon their said attorneys of record in this court, viz.: A. B. Gough, Esq., Montpelier, Idaho, or C. B. Jacks, A. L. Hoppaugh and C. C. Dey of Salt Lake City, Utah, or upon either of them, and that the same when made be deemed good service.



Third: That said complainants, Morse S. Duffield and Lewis A. Jeffs, be required to set forth any and every adverse claim, interest or demand in or to the above premises hereinbefore described, to the end that the same may be justly adjudicated null and void as against your orator, and that the title, ownership, possession and right of possession of your orator in and to said "Winfield," "Winter," "Wonder," "Winslow," "Wilmington," "Colcock," "Inman" and "Wizard" placer mining claims, and to each of them, and to every part and parcel thereof, be established and confirmed as against any and all claims of said complainants Duffield & Jeffs, and all clouds thereon forever removed.

Fourth: That your orator have such other and further relief as equity may require, and as to your Honors may seem meet, and its costs of suit in this behalf most wrongfully expended.

CLARK & BUDGE,

Solicitors for Defendant and Cross-complainant.

[25]

United States of America,  
Northern District of California,  
County of San Francisco,—ss.

Charles P. Eells, being first duly sworn, deposes and says: That he is Vice-President of the above-named defendant and cross-complainant, San Francisco Chemical Company, and that he makes this certification for and on its behalf; that he has read the foregoing answer and cross-complaint, and knows the contents thereof, and that the same is true of his own knowledge, except as to matters therein stated to be

upon information or belief, and as to these matters he believes it to be true.

CHARLES P. EELLS.

Subscribed and sworn to before me this 27th day of February, 1911.

[Seal]

M. V. COLLINS,  
Notary Public.

[Endorsed]: Filed March 9, 1911. A. L. Richardson, Clerk. [26]

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*In the Circuit Court of the United States in and for  
the District of Idaho, Southern Division.*

No. —.

MORSE S. DUFFIELD and LEWIS A. JEFFS,  
Complainants,

vs.

SAN FRANCISCO CHEMICAL COMPANY, a  
Corporation,

Defendant.

**Answer to Cross-bill of San Francisco Chemical  
Company.**

These defendants in the cross-bill, Morse S. Duffield and Lewis A. Jeffs, reserving to themselves all right of exception to the said cross-bill of complaint of said San Francisco Chemical Company, for answer thereto say:

1. Admit the allegations contained in paragraphs I, II and III of said cross-bill.

2. Answering paragraph IV of said cross-bill, they deny that from on or about the 8th day of July,

A. D. 1904, to on or about the 28th day of August, A. D. 1906, or at any time, or at all, William S. Goodfellow, Hugh Goodfellow, Arthur W. Goodfellow, R. W. Hart, John Shepard Eells, H. L. Atkinson, Richard M. Lyman and Joseph J. Taylor, or either, or any of them, were the owners in fee, except only as against the paramount title of the United States, or otherwise, [27] or at all, or in possession, or entitled to the possession of said alleged and so-called "Winfield," "Winter," "Wonder" and "Winslow" placer mining claims, or either, or any of them, as described in said cross-bill, or any part or portion thereof whatsoever. Also deny that from on or about the 22d day of August, A. D. 1904, to on or about the 26th day of August, A. D. 1906, or at any other time, or at all, said persons above named, or any or either of them, were the owners in fee, except only as against the paramount title of the United States, or otherwise, or at all, or in possession, or entitled to the possession of said alleged and so-called placer mining claim designated as the "Wilmington" as described in said cross-bill, or any part or portion thereof whatsoever.

Further answering said paragraph IV of said cross-bill, these defendants in the cross-bill say, that they have been informed that said San Francisco Chemical Company has succeeded to the alleged claim of the several persons mentioned in said paragraph, and that the allegation that said several persons are the predecessors in interest of said San Francisco Chemical Company may be true for anything these defendants know to the contrary, but these defend-

ants are strangers to all and every such matter and cannot form any belief concerning the same, and therefore call upon said complainant in the cross-bill to make such proof in respect thereto as it may be advised.

3. These defendants deny that on or about the 11th day of June, A. D. 1904, to on or about the 28th day of August, A. D. 1906, or at any other time, or at all, Charles C. Jones, E. C. Jones, M. C. King, L. P. King, M. J. Bringier, C. O. [28] McLaughlin, N. K. McLaughlin and J. T. Bringier, or any or either of them, were the owners in fee, except only as against the paramount title of the United States, or otherwise, or at all, or in possession, or entitled to the possession of the alleged placer mining claims designated as the "Colcock" and "Inman" as described in paragraph V of said cross-bill, or otherwise, or to any part or portion of said alleged placer claims, or either of them. That as to whether or not said last mentioned named persons were the predecessors in interest of said San Francisco Chemical Company in and to said alleged and pretended placer mining claims, or either of them, these defendants are utter strangers to all and every such matter and cannot form any belief concerning the same, and therefore leave the said complainant in the said cross-bill to make such proof in respect thereto as it may be advised.

4. Answering paragraph VI of said cross-bill, these defendants deny that from on or about the 31st day of December, A. D. 1905, to on or about the 8th day of April, A. D. 1910, William S. Goodfellow,



Hugh Goodfellow, Joseph J. Taylor, R. W. Hart, John Shepard Eells and Richard A. Sullivan, or any or either of them, were the owners in fee, except only as against the paramount title of the United States, or otherwise, or at all, or in possession, or entitled to the possession of the alleged and so-called placer mining claim described in said cross-bill as the "Wizard," or any part or portion thereof whatsoever, and as to the said last mentioned persons, or any of them, being the predecessors in interest of said San Francisco Chemical Company, these defendants in the cross-bill being utter strangers to all and every such matter have not and cannot form any belief concerning the same, and therefore [29] call upon the complainant in the cross-bill to make such proof in respect thereto as it may be advised.

5. Answering the VII paragraph of said cross-bill, these defendants deny that said or any, predecessors in interest, respectively, or otherwise, of said complainant in the cross-bill had any legal right to occupy or possess said alleged placer mining claims, or either or them, or any part or portion thereof. Also deny that said alleged predecessors of said complainant in the cross-bill, or either, or any of them, or said complainant in the cross-bill, were entitled to the possession of said alleged placer mining claims, or either of them or any part or parcel thereof, at any time, or at all, by virtue of any discovery of mineral within the boundaries of any of said alleged and pretended placer mining claims, as alleged in said cross-bill, or otherwise, or at all, or by virtue of full, or any, compliance with the local laws, or rules of



miners, or laws of the United States, or of the State of Idaho, or by pre-emption, or by actual possession as placer mining claims, or in any other manner whatsoever, or at all.

6. Answering paragraph VIII of said cross-bill, these defendants in the cross-bill deny that on or about the 28th day of August, A. D. 1906, or any other time, or at all, said complainant in the cross-bill has been, or now is, the owner in fee, except only as against the paramount title of the United States, or otherwise, or at all, or at any time, or times, since said date, or otherwise, or at all, has been, or now is in the exclusive possession, or any possession, or entitled to the possession of said pretended and so-called "Winfield," "Winter," "Wonder," "Winslow," "Wilmington," [30] "Colcock" or "Inman" placer mining claims, as described in said cross-bill, or otherwise, or at all, or to the whole or any part or portion thereof whatsoever. Also deny that on or about the 13th day of April, A. D. 1910, or at any other time, or at all, said complainant in the cross-bill has been, or now is, the owner in fee, except only as against the paramount title of the United States, or otherwise, or at all, or has been at all, or at any time, or times, since said date, or now is, in the exclusive or any possession, or entitled to the possession of said alleged "Wizard" placer mining claim, described in said cross-bill, or to any part or portion thereof whatsoever. Also denies that said complainant in said cross-bill has any legal right whatsoever to occupy or possess said alleged placer mining claims, or either of them, or any part or portion

thereof by virtue of the alleged deeds of conveyance referred to in said cross-bill of complaint, or by virtue of compliance with the alleged laws, or rules of miners, or any of them, or by actual, or any possession, as alleged in said cross-bill, of compliance, or otherwise, or at all.

7. Further answering said VII and VIII paragraphs of said cross-bill in respect to the alleged claims of said complainant in the cross-bill, these defendants say, it may be true, for anything these defendants know to the contrary, that said complainant in the cross-bill does claim, and its alleged predecessors in interest have claimed, any legal right to occupy and possess said alleged and pretended placer mining claims and each of them, but whether or not such claim or claims have been made, these defendants have no knowledge or belief and have never been informed, save by said complainant's cross-bill, and cannot set forth as to their belief or [31] otherwise, except to allege that if any such claim or claims were or are made the same are unfounded, and that in fact and in law, as the said cross-complainant well knows, it has no legal right to occupy or possess said pretended placer mining claims, or either of them, or any part or portion thereof whatsoever.

Further answering said paragraphs VIII of said cross-bill, these defendants deny that the said complainant in the cross-bill, or its alleged predecessors in interest, or either or any of them, have ever made any compliance with the local laws, or rules of miners, or laws of the United States, or of the State of Idaho, in respect to said alleged placer mining

claims, or either, or any of them, or now have, or ever had, actual possession as placer mining claims, or otherwise, or at all, of the premises described in said cross-bill, or any part or portion thereof.

8. Answering paragraph IX of said cross-bill, these defendants in the cross-bill admit that they assert and claim an interest in a portion of the premises described in said cross-bill, hereinafter more specifically stated, and to the ores and minerals therein contained. They deny that their said claim is false or untrue or unfounded in fact, or casts any cloud upon the alleged title or possession of said complainant in the cross-bill to the premises described in the cross-bill, or any part or portion thereof. Also deny that they base their claim upon any wrongful or unfounded assertion whatsoever, or any assertion unfounded in fact, as alleged in said cross-bill, or otherwise. Or that they have ever claimed that there is any deposit or bed of "carbonaceous limestone or lime phosphate" within the boundaries of said cross-complainant's alleged [32] placer mining claims, or either or any of them, but, on the contrary, what these defendants in the cross-bill have claimed, and do claim, as the said complainant in the cross-bill well knows, is that at the time the so-called placer locations referred to in said cross-bill were pretended to have been made there was contained within the alleged exterior boundaries of said so-called placer mining claims, and each of them, a known vein, or lode, of mineral-bearing rock in place called phosphorite, and valuable only for the said mineral contents thereof. That said lode, or vein,

lies in rock in place in the mass of the mountain between true walls, and has a well-defined dip and strike, and that the same was well known to exist in the manner and form aforesaid at the time of attempt to make said pretended placer mining locations, as alleged in said cross-bill of complaint. These defendants further deny that the said deposits or deposit so found are not in the form of a lode, or vein; also deny that there is no mineral found within the alleged limits of said pretended placer mining claims, or any of them, in the form of a vein, or lode, or that is subject to location or acquisition under the laws of the United States by virtue of lode locations. Also deny that said mineral deposits or deposit consists, as in said cross-bill alleged, or otherwise, than as hereinbefore expressly alleged.

9. Further answering said cross-bill, these defendants in the cross-bill allege that they have made no claim whatsoever as to any of the ground, or alleged mineral, contained within the alleged exterior boundaries of said so-called "Wilmington" placer mining claim, as described in said cross-bill of complaint.

That on the 14th day of November, A. D. 1907, these defendants in the cross-bill, then respectively being citizens [33] of the United States, entered upon the vacant and unoccupied mineral lands of the United States, subject to location, and thereupon made a discovery of a vein, or lode, of rock in place, known and called phosphorite, and thereupon on the 14th, 15th and 16th days of November, A. D. 1907, by virtue of discoveries of a vein, or lode, of phosphorite as aforesaid, and by virtue of full compliance



with the laws of the United States, and of the State of Idaho, and of the rules and regulations of miners, duly located the several lode mining claims, situate in an unorganized mining district in the County of Bear Lake, State of Idaho, known and called as the "Cumberland," "Fentress," "Jintown," "Obed," "Obey," "Overton," "Mount Pleasant," "Arkansas," "Hickman," "Columbia" and "Wayne" lode mining claims. That said "Cumberland," "Fentress," "Jintown," "Obed," "Obey," "Overton," "Mount Pleasant," and "Arkansas" have heretofore been officially surveyed for patent as United States Survey No. 2538, to which and to the plat attached to the amended bill of complaint herein these defendants in the cross-bill refer for a more particular and definite description of said lode mining claims, and each of them. That said "Hickman," "Columbia," and "Wayne" lode mining claims have heretofore been officially surveyed for patent and included in United States Survey No. 2537, to which and to the plat attached to the amended bill of complaint herein these defendants in the cross-bill refer for a more particular and definite description of said lode mining claims, and each of them.

That ever since the location of said several lode mining claims, and each of them, these defendants in the cross-bill have performed at least One Hundred Dollars' (\$100.00) worth of work upon, or for the benefit of said lode mining [34] claims, and each of them, each and every year since the location thereof up to and including the year, A. D. 1910.

That the extent of the claim of these defendants



in the cross-bill to the ground alleged to be covered by said pretended "Winfield," "Winter," "Wonder," "Winslow," "Colcock," "Inman," and "Wizard" placer mining claims, and each of them, is specifically set forth and alleged in paragraph VIII of the amended bill of complaint of the complainants herein (who are the defendants in said cross-bill), and to which reference is hereby made the same as if here again repeated and set forth in full. That the claim, and the sole claim, and the extent of the claim, made by these defendants in the cross-bill to the ground described in said cross-bill of complaint is as found and set forth in said amended bill of complaint herein, and to which reference is hereby made the same as if again herein repeated and set forth.

Further answering said cross-bill, these defendants in the cross-bill allege that within the exterior boundaries of complainants' said thirteen lode mining claims, and each of them, there is no mineral lands subject to location as a placer mining claim, and that ever since the location of said lode mining claims these defendants in the cross-bill have been, and now are, the owners, except only as against the paramount title of the United States, in the possession, and entitled to the possession, of the said lode mining claims, and each of them, and the whole thereof, and that said complainant in the cross-bill has no right, title or interest in or to the ground included within the exterior boundaries of said lode mining claims, or either, or any of them, or any part or portion thereof.

And these defendants deny all and all manner of unlawful [35] combination and confederacy where-

with they are by said cross-bill charged, without this, that there is any other matter, cause, or thing in the said cross-bill of complaint contained, material or necessary for these defendants to make answer unto and not herein and hereby well and sufficiently answered, confessed, traversed, and avoided or denied, is true to the knowledge or belief of these defendants; all which matters and things these defendants are ready and willing to aver, maintain and prove, as this Honorable Court shall direct, and humbly pray to be hence dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

A. B. GOUGH,  
A. L. HOPPAUGH,  
C. B. JACK and  
CHARLES C. DEY,

Solicitors for Morse S. Duffield and Lewis A. Jeffs,  
Defendants in the Cross-Bill.

United States of America,  
District of Utah,  
County of Salt Lake,—ss.

Lewis A. Jeffs, being first duly sworn, deposes and says: That he is one of the defendants to the Cross-Bill herein. That he has read the above and foregoing Answer to the Cross-Bill of Complaint, knows the contents thereof and that the same is true to his own knowledge, except as to those matters therein stated upon information and belief, and as to those matters he believes it to be true.

LEWIS A. JEFFS.

Subscribed and sworn to before me this 22d day of  
March, A. D. 1911.

[Seal]

ARTHUR E. MORETON,  
Notary Public.

[Endorsed]: Filed March 24, 1911. A. L. Rich-  
ardson, Clerk. [36]

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*In the Circuit Court of the United States, in and for  
the District of Idaho, Southern Division.*

No. —.

MORSE S. DUFFIELD and LEWIS A. JEFFS,  
Complainants.

vs.

SAN FRANCISCO CHEMICAL COMPANY, a  
Corporation.

Defendant.

**Replication to Answer.**

The replication of Morse S. Duffield and Lewis A. Jeffs, complainants, to the Answer of San Francisco Chemical Company, defendant.

These replicants saving and reserving unto themselves all and all manner of advantage of exception to the manifold insufficiencies of said Answer, for replication thereunto say that they will aver and prove their said bill to be true, certain, and sufficient in the law to be answered unto, and that the said Answer of the said defendant is uncertain, untrue, and insufficient to be replied unto by these replicants; without this, that any other matter or thing whatsoever in the said Answer contained, material or effect-

ual in the law to be replied unto, confessed and avoided, traversed, or denied is true; All which matters and things these replicants [37] are and will be ready to aver and prove as this Honorable Court shall direct, and humbly pray as in and by their said bill they have already prayed.

A. B. GOUGH,  
A. L. HOPPAUGH,  
C. B. JACK and  
CHARLES C. DEY,  
Solicitors for Complainants.

[Endorsed]: Filed March 24, 1911. A. L. Richardson, Clerk. [38]

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*In the Circuit Court of the United States for the  
District of Idaho, Southern Division.*

IN EQUITY.

MORSE S. DUFFIELD and LEWIS A. JEFFS,  
Complainants,

vs.

SAN FRANCISCO CHEMICAL COMPANY, a  
Corporation,

Defendant.

**Replication to Answer to Cross-Bill.**

This repliant, saving and reserving to itself all and all manner of advantage of exception which may be had and taken to the manifold errors, uncertainties and insufficiencies of the answer to its cross-bill made by the defendants therein, Morse S. Duffield and Lewis A. Jeffs, for replication to said answer saith;



That it doth and will aver, maintain and prove its said cross-bill to be true, certain and sufficient in law to be answered unto by the said defendants, and that the answer of said defendants is uncertain, evasive and insufficient in law to be replied unto by this replicant; without that, that any other matter or thing in the said answer contained, material or effectual in law to be replied unto, and not herein and hereby well and sufficiently replied unto, confessed or avoided, traversed or denied, is true; all of which matters and things this replicant is ready to aver, maintain and prove as this Honorable Court shall direct, and humbly prays as in its cross-bill it hath already prayed.

CLARK & BUDGE,  
Solicitors for Cross-Complainants.

[Endorsed]: Filed March 31, 1911. A. L. Richardson, Clerk. [39]

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*In the Circuit Court of the United States, in and for  
the District of Idaho, Southern Division, Ninth  
Circuit.*

MORSE S. DUFFIELD and LEWIS A. JEFFS,  
Complainants,

vs.

SAN FRANCISCO CHEMICAL COMPANY,  
Defendant.

**Stipulation Concerning Final Hearing and  
Submission.**

WHEREAS, said cause is now ready to be submitted for final determination; and



WHEREAS, the Judge of said Court is not willing to hear said cause; and

WHEREAS, Hon. William B. Gilbert, Circuit Judge, has heretofore assigned Hon. William C. Van Fleet, District Judge for the Northern District of California, to hear said cause; and

WHEREAS, it is more convenient for all concerned to have the final hearing of said cause at San Francisco, California.

NOW, THEREFORE, it is hereby stipulated and agreed by and between the solicitors for the respective parties to the above-entitled cause that the final hearing and submission of said cause before Hon. William C. Van Fleet, District Judge, be had at the City of San Francisco, California, in said Ninth Circuit, on the 5th day of January, A. D. 1912, at the opening of court on said day or as soon thereafter as counsel can be heard. [40]

IT IS HEREBY FURTHER STIPULATED AND AGREED that the final hearing, submission, decision and determination of said cause, before the Judge and at the place herein named, shall have the same force and effect in all respects the same as if the hearing and final determination of said cause were had within the District of the state of Idaho.

Dated this 13th day of December, A. D. 1911.

CHARLES C. DEY,

C. B. JACK and

A. L. HOPPAUGH,

Solicitors for Complainants.

CLARK & BUDGE,

Solicitors for Defendant.

[Endorsed]: Filed December 16, 1911. A. L. Richardson, Clerk. [41]

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[Testimony of Harry J. Pitts, for Complainants.]

HARRY J. PITTS, a witness produced by the complainants, being first duly sworn, testified:

Direct Examination.

(By Mr. DEY.)

Q. What is your full name? A. Harry J. Pitts.

Q. What is your business?

A. A Deputy United States Mineral Surveyor.

Q. For the District of Utah? A. Utah, only.

Q. For Idaho? A. No; not for Idaho.

Q. How long have you been engaged in the practice of your profession? A. About ten years.

Q. In Utah?

A. Mostly in Utah. I have been in a number of states on short visits.

Q. You have been in Idaho, I suppose?

A. Yes, sir.

Q. Did you prepare the plat marked for identification "Exhibit 1, J. W. C."? A. Yes, sir.

Q. From what data did you prepare that plat?

A. From the official notes of survey for patent of the lodes, and—

Q. From what knowledge or information, I mean—

A. —from the advertisements or publications of certain placers which are thereon shown—yes; from the advertisements only as to all of the placers.

(Testimony of Harry J. Pitts.)

Q. And from the description given in the pleadings? You were given the amended bill of complaint as to the conflicting area—

A. Yes, sir; I checked them from those afterwards, yes, sir.

Q. You afterwards checked them from the descriptions in the pleadings in the case? A. Yes, sir.

Q. Now, what does Exhibit 1 purport to show?

A. It shows section 31, and part of section 30, township 12 south of range 45 [46] east of Boise base and meridian.

Q. What county and State?

A. Bear Lake county, I believe.

Q. In the State of Idaho? A. State of Idaho.

Q. All right.

A. Section 6, and part of 7 in township 13 south of range 45 east. In the sections named it shows the location of certain lodes and placers, and the location of—

Q. Hold on. Name the lodes.

A. Beginning at the north and running southerly, we have the Obey, Obed lode, Jintown lode, Fentress lode, Cumberland lode, Overton lode, Mt. Pleasant lode, Arkansas lode, Tennessee lode—that is not in the suit but it is shown on the map—Hickman lode, Maury lode, Columbia lode, and the Wayne lode. Also beginning at the north end of the map it shows the Colcock placer, Inman placer, Winfield placer, Wonder placer, Winter placer, Winslow placer, Waterloo placer and Wizard placer. It shows the Montpelier Canyon Creek, and most of the outcrop,

(Testimony of Harry J. Pitts.)

prominent outcrop. It shows the courses and distances on the lodes—

Q. Where did you get the outcrop from?

A. In the course of the survey of the claims.

Q. It is drawn to a scale of 200—

A. It is made on a scale of 200 feet.

Q. To the inch; and north is shown by the arrow?

A. Yes, sir.

Q. In what color are the boundaries of the placers shown?

A. They are in green. The lodes are shown in black.

Q. The boundaries are? A. Yes, sir.

Q. Are the corners marked in any way, or identified? A. The corners of the placers?

Q. No, no; the corners of the lodes. Were they identified in [47] any way upon the map?

A. They are given in black figures at their proper places.

Q. The figures indicate what?

A. Indicate the corners as given in the survey.

Q. According to the numbers?

A. Yes, sir; the number of the post is shown in black, as they are returned to the United States Surveyor General's office. For convenience in reading, I have marked the various improvements of any considerable size with small red figures consecutively, beginning at 1, and running to 56. Those improvements, I believe, belong to, or were made by not only this company, but—

Q. Do you know?

(Testimony of Harry J. Pitts.)

A. Only as I have had them identified to me.

Q. Now, what workings are in red? What are they?

A. No; the workings are in black, but the numbers referring to the several workings are in red and placed near them on the map.

Q. Is the character of the working indicated in any manner, and if so, how?

A. Yes, sir; a stripping on the vein is marked so: "stripping," and tunnels are shown in the usual conventional manner, and cuts—

Q. Describe it, what you mean by "usual."

A. Well, the black lines indicate the tunnels and the cuts are by double or parallel lines. Some of the larger cuts have coarse hatching, showing their extent. The top of the principal ridge is shown in brown ink, with hatched lines, and the gulches and roads are also shown in brown in the conventional way.

Q. Any elevations shown?

A. I have not shown any elevations upon the map. The ground rises towards the north.

Q. Describe that canyon or creek.

A. Montpelier Canyon [48] Creek and Gertch Hollow are shown in blue, and the road up Montpelier Canyon is shown in brown.

Q. And marked? A. Marked "road."

Q. The workings, and everything are to the scale you have mentioned? A. Yes, sir.

Q. When were you on the ground—oh, just one question before that. I understand you to say that



(Testimony of Harry J. Pitts.)

you have compared the descriptions and data given on this plat with the amended complaint and answer in this case?      A. Yes, sir.

Q. And they are correct?      A. Yes, sir.

Q. Now, when were you upon the ground?

A. I first visited the ground on July 13, 1910, and was there about ten or twelve days.

Q. July what?      A. July 13, 1910.

Q. (By Mr. BUDGE.) How long did you say?

A. I will see in a moment—until July 27, 1910.

Q. What was the object of your going there?

A. The primary object was to see that the corners of those claims were standing, and to make them so that they would stand for sometime.

Q. Did you survey them at that time?

A. Yes, sir; I made a regular survey of them.

Q. Have these lode claims, shown on Exhibit 1, been officially surveyed?      A. Yes, sir.

Q. Who by?

A. By Mr. Brooks, Charles P. Brooks.

Q. Was that subsequent or prior to your going there?

A. That was subsequent. I acted as his assistant while he was making the survey.

Q. You went with him when he made the official survey? [49]      A. Yes, sir.

Q. When was that?

A. That was about the last four days that I was there.

Q. In 1910?      A. Yes, sir.

Q. And you and Mr. Brooks were both there?

(Testimony of Harry J. Pitts.)

A. I was there alone first, until the corners had been established, then he came out and made the official survey, and went all over them, and surveyed to every post and marked the posts for patent.

Q. Have you, Mr. Pitts, compared the conflicting area described in the amended bill of complaint here with the plat marked "Exhibit 1"? A. Yes, sir.

Q. Is it correctly shown—how did you find it as to being correct or otherwise?

A. It was just the same; the figures of all of the intersections, I think are shown on this map.

Q. And the conflicting area as described in the amended bill of complaint you found to be correct?

A. Yes, sir.

Q. Now, when you went there, where did you start in?

A. I started on the southwest corner of the Overton lode, marked "3" on this map.

Q. Will you please give us what you found and what you did at that time?

A. At corner 3 of the Overton, marked so on this map, being the southwest corner, I found a 4 by 4 sawed pine post and pole 5 inches in diameter, 6 feet long in a mound of stone, marked for the Overton.

Q. Where was the marking on it?

A. Marked "southwest corner of the Overton."

Q. Whereabouts on the post was the marking?

A. As I remember it, it was pointing towards the hill here, southeasterly. [50]

Q. Marked what, southwest—

A. Southwest corner of the Overton. I haven't

(Testimony of Harry J. Pitts.)

written that, or kept any notes of them if they were marked, but if they were not marked, I have noted it. That is why I say it was marked. Then, I went to the southeast corner of the Overton. I found a mound of stone, and Mr. Hoff said it was a part of the original monument at that point.

I went to the northwest corner of the Overton, which was marked also for the southwest corner of the Cumberland. I found a 4 by 4 post lying in a small draw, just below the point here mentioned. It had rolled down the hill, and at a point where the corner is set, as shown upon this map, there was the remains of the mound where it originally stood, and we put it back in that mound.

Q. How long was that 4 by 4 post?

A. I have not a note of it, but my recollection is about  $4\frac{1}{2}$  feet long

Q. And marked how?

A. Marked for the southwest corner of the Cumberland and northwest corner of the Overton.

Q. Explain where the marking was on the post?

A. The pole was lying down and was marked on the side. I found it in the draw down below the point where it was set.

Q. Were all those markings you have given on the same side of the post?

A. I don't recollect whether they were or not.

Q. Or on different sides? The post had four sides of it? A. Yes, sir; I don't recollect that.

The southeast corner of the Overton lode—the northeast corner of the Overton lode, which is in

(Testimony of Harry J. Pitts.)

Montpelier Canyon Creek, according to the location notice, I did not find. I re-established [51] it. That was what I was sent up there for, to re-establish those corners if I found them missing.

Q. What did you put up there?

A. I put up a 4 by 4 by 4 post in a very substantial mound of stones, and marked the post for the Overton and Cumberland lodes. The discovery of the Overton lode I found as marked here standing in the—

Q. “Marked here” does not state anything. When you say marked here and there, it don’t sound right in the record. You know what to say, Mr. Pitts, don’t you? When you say here, say marked on exhibit 1. Now, go ahead in that manner.

A. The discovery of the Overton, as marked on exhibit 1, the south end of a large cut, I found in the place indicated on the map, and it was a pine pole 6 feet long and 6 inches in diameter set with a notice in a can on the pole. The discovery of the Cumberland—

Q. No; we will finish that one first. Is that all the marking on the Overton that you found?

A. Yes, sir.

Q. Any center end line stakes? A. No, sir.

Q. Any angles in the side lines in the Overton?

A. No, sir.

Q. Now, you have given everything that you found in connection with the Overton, have you, in the way of markings on the claim at the discovery and the boundaries? A. Yes, sir.



(Testimony of Harry J. Pitts.)

Q. Now, you may proceed to the next. What is the next one?

A. The next claim in order going northerly, and which I surveyed in that order, was the Cumberland. I found at the discovery two hewn posts, side by side in a mound and notice of location there in the mound, and it set alongside of a large cut.

Q. Can you give any better description of the mound or post? [52]

A. No, sir; only from my memory. I have no note put down. My recollection is that there were two posts each about  $3\frac{1}{2}$  inches in diameter, and standing about 4 feet out of the ground with something of a mound at the base of the posts.

Q. The notice was there, was it?

A. Yes, sir; I saw that notice. The northwest corner of the Cumberland was a 4 by 4 by 5 feet long, of which I cut off 1 foot, in order to be able to set my instrument over it, and set it more firmly in the ground, not moving it, however.

Q. Marked how?

A. Standing in mound, and it was properly marked, otherwise I should have noted it.

Q. It is not for you to say whether it was properly marked or not. What were the marks on it?

A. Marked for the northwest corner of the Cumberland, and the southwest corner of the Fentress.

Q. Now, will you tell me with relation to the discovery point, or the discovery place where this mark was made; you can do that, can't you? What side of the post, in other words, with reference to the dis-



(Testimony of Harry J. Pitts.)

covery was the marking on it?

A. My recollection is that it was marked on the east side.

Q. Would that be facing the discovery?

A. It would be facing the interior of the claim.

Q. Facing the interior of the claim?

A. Yes, sir.

Q. Very good. Go ahead. Dispose of all of each one as you go along so that I won't have to interrogate on them.

A. The northeast corner of the Cumberland, which equals the southeast corner of the Fentress, marked for that, showing that it was meant for that purpose, was a hewn post 4 by 4 feet [53] standing, which I changed, and put in a 4 by 4 sawed pine post in its place, which post was properly marked,—or was marked—I won't say properly marked, but marked.

Q. How marked and where?

A. For the southeast corner of the Fentress and northeast corner of the Cumberland.

Q. Where marked, on the face? Where was it with reference to the discovery?

A. Facing up the hill; it would be towards the interior of the claim for which it was placed and marked.

Q. Respectively?

A. Respectively, yes, sir. The Fentress lode. The discovery was a 4 by 4, 5 feet long—

Q. Have you gone through the Cumberland?

A. Yes, sir. The south end line of the Cumberland equals the north end line of the Overton.

(Testimony of Harry J. Pitts.)

Q. You have given how many corners of the Cumberland?

A. Four corners, three of which I found and one of which I did not.

Q. Any angles in the side lines?      A. No, sir.

Q. Any end stakes, center end stakes?

A. No, sir; not that I could identify.

Q. Now, you passed on to what?

A. The south end line of the Fentress is the north end line of the Cumberland, which I have described. From thence I went to the discovery of the Fentress which I found to be a 4 by 4, 5 feet long sawed pine, notice in mound and standing.

Q. How was the notice put on there?

A. It was put in a can, near the post, as most of them were. I then went to the northwest corner of the Fentress, which is marked "corner No. 3" on this exhibit No. 1, and I found it to be 4 inches square, 4 feet out of the ground, sawed pine. [54] I set it a little more firmly and did not change it in the position as shown on this map.

Q. (By Mr. BUDGE.) Which corner is that?

A. The northwest corner of the Fentress. And then near the center end of the claim I found a pole 4 inches in diameter, 5 feet long, and marked, marking the center of the north end of the Fentress lode, and at the northeast corner of the Fentress lode, I found a 4 by 4 post, 4 feet out of the ground, sawed pine, standing, and properly marked.

Q. Please state what the marking is.

A. Marked for the northeast corner of the Fentress.

(Testimony of Harry J. Pitts.)

Q. Whereabouts?

A. Marked on the side looking down the hill, and the mark was facing the inside of the claim. The next lode as I proceeded north, and which I surveyed next, was the Jimtown lode. I found the southwest and southeast corners to be 4 by 4 post, 4 feet out of the ground.

Q. (By Mr. BUDGE.) What corners?

A. The southwest and southeast, marked "2" and "1" respectively, on Exhibit No. 1.

Q. You found what?

A. Each were 4 by 4, 4 feet out of the ground, sawed pine in mound. They occupied exactly the same position as shown upon this map.

Q. Any markings?

A. They were marked for the southwest and southeast corner of the Jimtown lode.

Q. Whereabouts?

A. In the corner, so that they faced the inside of the claims.

Q. Marked facing the inside of the claims?

A. Yes, sir. At the discovery of the Jimtown lode I found an old discovery post marked, with the notice can on top, lying in the bushes [55] below the phosphate exposure. I reset it on the phosphate and as Mr. Hoff identified its original position as being on the phosphate. That is the best I could do.

Q. Where did you find it lying upon the ground as shown by Exhibit 1, and where did you set it?

A. It was lying just east of the position which is shown, or a little northeast in the bushes, near a

(Testimony of Harry J. Pitts.)

place marked here as "cut."

Q. How far away?

A. About fifteen feet, I should say. The northwest corner of the Jintown equals and is the southwest corner of the Obed. I found a 4 by 4 post 4 feet long, pine post lying up the hill from the present position as set by me. There was no marking upon the post, but I took it to be the post which had been originally set there.

Q. No marking?

A. It is the only evidence I could find on the corner at that point.

Q. The corners were identified to you by whom?

A. Mr. Hoff was with me and he had been over the ground at a previous time.

Q. What did you do?

A. I run out 300 feet from the point where the discovery was, which was not as far out as this old post was lying, but which distance was called for in the location notice, and set a post there on a line parallel with the other end, which I had found.

At the northeast corner of the Jintown, which is the southeast corner of the Obed, I found a 4 by 4 post 4 feet long, a sawed pine, lying in the bed of the creek. It was knocked down in the bed of the creek, so I set it up just outside of the creek, but did not set it three hundred feet away from the point [56] where I had the mark of the discovery; I came within that distance. The location notice calls for 300 feet.

Q. To make it plain upon the Exhibit 1, where did you find it, and where did you put it up, in relation

(Testimony of Harry J. Pitts.)

to that corner as it appears on Exhibit 1?

A. The corner post was lying in the creek at the point where Gertch Hollow intersects the north line of the Jintown, or nearly there, as I remember; I had surveyed to find it, and I picked it up and set it up, set it easterly of the creek so as to get it above the action of the water, and so that it would not be washed down a second time.

Q. Were there any markings on it?

A. No; the markings were washed off, as I remember it; no marks. It had been lying there for some time.

Q. Nothing legible?      A. No, sir.

Q. Go on.

A. The Obed lode, which is next north of the Jintown, I found the discovery, or at the discovery, a 4 by 4 hewn post, 4 feet long out of the ground, set in mound, but I did not find a notice or any marks on the post, but it was identified by Mr. Hoff.

Q. At the discovery?

A. I did not disturb it at all.

Q. What?

A. I did not disturb it at all. It is there now as I found it.

Q. Any notice?

A. No notice or markings, but Mr. Hoff identified it to me as the discovery.

Q. What did you find?

A. A 4 by 4 hewn post, 4 feet out of the ground, set in mound.

The northwest corner of the Obed lode, which is the



(Testimony of Harry J. Pitts.)

southwest corner of the Obey, I found no traces of the old corners, [57] and I set it according to the calls of the location notice.

The northeast corner of the Obed, which is the southeast corner of the Obey, I found an old corner 4 by 4 inches, 4 feet long, sawed pine, marked for the Obed and Obey, the post lying near a clump of bushes. I set this corner in as nearly the present position, or the position it originally occupied as I could in a mound, and after a diligent search could not find any traces of the Government's stone at that place.

Q. What kind of a stone?

A. Of the Government stone. The location notice, as I remember it, called for this corner to be set at the quarter section corner on the north side of section 31, but I was not able to find this stone, and afterwards Mr. Brooks and I looked carefully for it. We were unable to find it.

Q. You set the post yourself?

A. At the point there it was lying.

Q. Is that at the point shown on Exhibit 1?

A. Yes.

Q. Go on.

A. The Obey lode lies next northerly. The northwest corner of the Obey lode was a hewn post, 4 inches square and 4 feet out of the ground. I used this corner post for the final corner, and I took out the post and reset it more firmly, adding a large mound of stone.

Q. Did you give the dimensions of it?

(Testimony of Harry J. Pitts.)

A. Yes, sir; 4 inches square, 4 feet out of the ground.

Q. Marked?

A. It must have been marked on, I would have noted it. I did not note it and I did not pass any that were not marked, but it is set now in about the position I found it. [58]

Q. You haven't any recollection?

A. Not as to the marking, but that it was marked, I am sure.

At the north center end I found a pine pole, 4 inches in diameter, 5 feet long lying on the ground about 100 feet beyond and north of the center end as I established it.

Q. And marking?

A. Marked on the side for the Obey lode, center end. The northeast corner—

Q. (By Mr. BUDGE.) How was that marked?

A. I cannot give you the exact markings on it, because I did not note them, but it was marked as the center end of the Obey lode, and was lying down about 100 feet northerly of the center end as shown upon this Exhibit No. 1.

The northeast corner of the Obey was a 4 by 4 pine post, 5 feet long, standing about 200 feet northerly from the corner as I set it. In other words, the claim was staked out a little bit long, and I drew it in about that much and reset the corner at the present position of corner 4 as being within the calls of the location notice.

The discovery of the Obey lode was a 4 by 4 by 4 foot

(Testimony of Harry J. Pitts.)

pine post lying as I located it here, and is shown on Exhibit 1. I set it up on the dump, and built a mound around. It is marked for the Obey lode.

Q. Marked how?

A. Marked in pencil for the discovery of the Obey lode, is my recollection of it.

Q. How long was that post?

A. It was 4 feet long; 4 inches square and 4 feet long, lying on this dump. I picked it up at the place where I found it, and that point is marked "discovery" on Exhibit 1. [59]

Q. Now, were there any angles in the side lines of any of the claims that you have described so far?

A. No, sir.

Q. Proceed.

A. I next went to the Arkansas lode, and I found the northwest—no; I went to the Mt. Pleasant lode first. On the Mt. Pleasant lode I found the northeast and northeast corners each 4 by 4,  $4\frac{1}{2}$  feet long, pine posts, which I firmly set. There was a small mound at the northeast corner. There was no mound, as I remember it, at the southwest. At the northwest corner I found an old post marked for the Mt. Pleasant, and also the northeast corner, and I cut off a little of the post at the northwest corner, so that I could set my instrument over it, but I did not change its position as I found it set. At the discovery was a 4 by 4 pine post, 4 feet out of the ground, standing at the mouth of the discovery and tunnel, as shown on Exhibit 1. I could not find the southeast and southwest corners. At the southwest corner, that

(Testimony of Harry J. Pitts.)

position, as I set it, was identified to me and agreed approximately with the location notice.

The Arkansas lode, northwest corner, as I found it, was as located on Exhibit No. 1. It was a 4 by 4 pine post, 4 feet long, lying down. I stood it up and added a mound to it. There was a sign of where it had been standing there, and I stood it up and set it firmer. The northeast corner I could not find any traces of. I established it from what evidence I could get on the south end and location notice.

The east center side line there was as I found it 2 inches by 4 inches by 4 feet long, or 4 feet extending out of the ground on a cliff of rock adjacent to where I set the new corner marked "3" on Exhibit 1.

Q. Was that a center side line? [60]

A. Yes, sir.

Q. An angle in the side line there?

A. That was an angle there, yes.

Q. And marked so?

A. I don't know whether there had been any other part to this when I found it.

Q. Have you given the markings on that stake?

A. Only as east center side line, which I think was the original mark. I have usually designated here the way I found it marked upon the post, and if it was not marked, why, I have not noted it here.

Q. That was lying down?

A. No; that was standing.

Q. Now, where was the marking with reference to the discovery of the claim?

A. There was only one way you could see it, which

(Testimony of Harry J. Pitts.)

was from down the hill.

Q. Where was the mark?

A. The mark was on the side looking down the hill into the Arkansas claim.

Q. I don't know downhill, or uphill on your map there.

A. It looked westerly. On the west center side there was an old 4 by 4 post standing 4 feet out of the ground, about 150 feet westerly from the one which I set, which is marked on Exhibit 1 as "6."

Q. Any marking?

A. No marking. I am not sure it was the correct one. I set a new post 150 feet further in. On the Arkansas claim there were some corners which I could not identify. I found the southwest corner of the Arkansas, a 4 by 4, 4 feet long, pine post, marked for the southwest corner of the Arkansas way down the gulch near the center of the Tennessee lode, evidently washed down in the spring. I set a [61] new post about 300 feet from the discovery, but I could not identify the end line to the west. The location notice called for the end line being 30 feet away from the discovery, which I found and 600 feet in width of the lode, and I mapped out on the ground the Arkansas lode as best I could. After a diligent search I could not find the original southeast corner. This claim is now bounded as Mr. Hoff thinks it should be, taking in work put on by the Duffield and Jeffs Company in green.

Q. You are done with the Arkansas now, are you?

A. Yes, sir.



(Testimony of Harry J. Pitts.)

Q. What corners were missing there?

A. As marked on exhibit 1, corner 2 and corner 4. Corner 5 I found, but down by corner 3 of the Tennessee, down in the gulch, but I don't think it was set originally there.

Q. It was lying down?

A. It was lying down in the gulch. The discovery of the Arkansas was a hewn post 3 inches in diameter, 5 feet long, with stone mound, and the notice was in the mound. I don't remember that this post was marked. It was a good-sized mound with the notice in the can, and this post stuck up there.

I next went to the Hickman lode. The southwest corner of the Hickman was located in the position marked for 2 Maury lode on Exhibit 1, an unhewn post in mound of stone marked for southwest corner of the Hickman, also for the northeast corner of the Maury.

Q. (By Mr. JACK.) That is the southwest corner of the Hickman, you say? A. Yes, sir.

Q. (By Mr. JACK.) And the northeast of the Maury?

A. Yes, sir. At the southeast corner of the Hickman I did not find any post, but I found a substantial mound of stone, which [62] was identified as being the southeast corner of the Hickman.

Q. Did that mound have the appearance of having had a post in it?

A. Yes, sir; built by hand without a doubt. The rock remained there in a good substantial mound, but

(Testimony of Harry J. Pitts.)

I could not find any markings to make sure of it, and that was located about four or five hundred feet easterly of the southwest corner of the location corner as I found it.

Q. How many feet?

A. About 500 feet, I think, but I can tell you. It was directly south 0 degrees 31 minutes east of corner 5 of the Hickman lode as marked on Exhibit 1. It was on that line and that is how that line was determined.

Q. How far south?

A. That claim was surveyed in two different ways. The first time it was laid out it was made square and afterwards drawn into the odd shape in which it now appears, but the shape in which it now appears is within the corners as they were found to exist as it was surveyed first.

Q. I am asking you to make clear just what you found on the ground in the way of markings with respect to the Hickman claim, and where they were, and what you did.

A. It was 425 feet easterly of corner No. 2.

Q. —when the question was asked you was away from corner No. 5?

A. I cannot give that without some considerable calculation.

Q. Now, mark on there about where it was as nearly as you can.

A. It is approximately where I put the black pencil dot and marked it "L. C. Hickman, southeast corner"; and the northeast corner of the location was

(Testimony of Harry J. Pitts.)

standing at a point which is marked on here— [63]

Q. On Exhibit 1?

A. On Exhibit 1, "L. C. Hickman, northeast corner," approximately at that point. Now, I have got the description of it. The northeast corner was a 4 by 4 post, sawed pine post, in a substantial mound of stones, marked for the northeast corner of the Hickman, and the markings were pointed southwesterly, pointed up from the gulch. The south center end of the Hickman lode I found on a line with the two south boundary posts of the Hickman, and about midway between. I did not make a record of how far it was in there, but there was a post standing marked for the south center end of the Hickman lode.

Q. Give the dimensions and where it was marked.

A. It was an unhewn post, and I have no mention here, but I remember it was about 3 inches in diameter, and something of a pole. This post stood up some distance.

Q. Was it not hewed for marking?

A. No; it was not hewn; just written on the side of the pole.

The north end center of the Hickman lode I found a 4 by 4 post 4 feet out of the ground, found in mound of stone, marked for north and center of the Hickman lode, or northwest corner.

Q. Hold on a minute. Where was that mark, and where was that post located? Identify it on Exhibit 1 where you found it.

A. I have not the notes here from which I could locate it exactly. It was about at the point marked

(Testimony of Harry J. Pitts.)

for 6 of the Hickman in its present form of survey, about 300 feet from the northeast corner. It was standing on the west side of a small draw which drained down from the discovery.

Q. (By Mr. BUDGE.) Are you talking now about the north center end.

A. I did not find the northwest corner, or any traces of it. [64]

Q. Now, have you completed the corners of that claim as originally found?

A. I have completed the corners with the exception of making a note of the discovery which I found.

Q. All right. The discovery of the Hickman was a 4 by 4 post, 5 feet, alongside of another post in a mound, marked "Discovery of the Hickman."

Q. Is that shown on Exhibit 1?

A. I don't remember that I found a notice there, though there might have been one.

Q. Is that shown on Exhibit 1?

A. The discovery is shown on Exhibit 1 at a place marked D. I S.

Q. At the same place shown on Exhibit 1?

A. Yes, sir.

Q. Now, did you draw in the Hickman claim to the present position before Mr. Brooks made his survey?

A. No; that was recent, and I was not present when it was drawn in to its present shape, but he was familiar with the posts as I set them; and originally, at the time I assisted him, he surveyed it making it a square claim, and afterwards changed it before the notes were sent to the Surveyor General's office.

(Testimony of Harry J. Pitts.)

Q. And angles in the Hickman side lines?

A. In the calls of the location notice or certificate there were none, but at present it has a very angular appearance.

The Wayne lode, I think, is the next one here in its order. Do you wish me to describe all the other claims which are shown on here?

Q. You have got the Columbia and the Wayne left?

A. The corners which are involved, I believe, in this case of the Columbia are corners 4 and 5 as marked.

Q. Give us the lay of the Columbia. Never mind what is involved here. [65]

A. All right. For the Columbia lode, the corner of which is marked "No. 8" on Exhibit 1 was found in place, an unhewn post 7 feet long in a mound, identified to me by Mr. Hoff, identical with the southeast corner of the Maury lode.

Q. Marked how?

A. I don't remember the markings. I don't think it was marked; it was just a long hewn post in a good substantial mound of stone. The northeast corner marked "1" on Exhibit 1 was not found, but falls in the gulch as near as I can make out from the location notice—it would have been placed in the gulch at the turn of the much used road at the base of, or near the ore bin of the phosphate company which was working there.

Q. How are the ore bins shown on Exhibit 1?

A. The bin is shown by the rectangular black spot.

Q. Give us the two markings, and the side that the



(Testimony of Harry J. Pitts.)

markings were on.

A. That one was not found. I found the discovery post in the mound above the cut shown here on Exhibit 1.

Q. Shown how on Exhibit 1?

A. Shown so on Exhibit 1 as being just above a cut. I did not find the location notice. The post was identified to me by Mr. Hoff, and no markings that I remember.

Q. Did you give the dimensions?

A. I haven't them noted, but I remember them to be about 4 inches square and about 4 feet out of the ground. Did not find corner No. 2; it falls on the side of the dump on which it was hard to make it stand. I don't know that the corner I put up would stand there although, I took particular care to make it solid.

Q. Corner No. 7 was found in a place located here. (Pointing.) [66]

Q. That is an angle in the side line?

A. Yes, sir. It was a crooked pole marked at angle in Columbia lode, set in mound of stones.

Q. Give the dimensions.

A. I did not take the dimensions. It was not larger than 3 inches in diameter, and just a crooked pole standing in the mound.

Q. How long?

A. About  $4\frac{1}{2}$  feet long, as I remember it; stood up quite high. Did not find corners 3 or 6, but the posts were identified by the lode line angle poles which stood midway between the positions as shown on Ex-

(Testimony of Harry J. Pitts.)

hibit 1, and at the turn in the lode line, and were marked "Columbia"; I have forgotten the exact marks. At any rate it indicated to me it was the bend in the lode line.

Q. (By Mr. BUDGE.) You say there was no post there?

A. There was a post midway between posts 6 and 3, which, as I say, was so marked as indicated to me that it was the bend in the lode, but not a bend in the side line. Corners 4 and 5 were substantial stone monuments without posts in them, and they were identified to me as being the southeasterly end line of the Columbia.

Q. By Mr. Hoff?

A. By Mr. Hoff, yes, sir. I think that is all of the Columbia lode.

The first thing I have on the Wayne lode is regarding the south end. The southwest, the southeast corner and the south center end poles were lying down alongside of small mounds.

Q. (By Mr. BUDGE.) What corner now?

A. The southwest corner, marked "6" on Exhibit 1; Southeast corner, marked "5" on Exhibit 1, and south center end were lying alongside of a small [67] mound. The poles were marked in pencil for the Wayne, and just inside of the fence to a pasture. Corners No. 4 and 7, angle corners, were monuments of stone identified to me by Mr. Hoff. They stood near the summit of a small ridge, and could be plainly seen from the adjacent hill. The mounds were of good size with no posts in them.

(Testimony of Harry J. Pitts.)

Corners No. 3 and 8, angle corners, I found a post on the angle of the lode line between the two corners, found standing; identified by Mr. Hoff. There was a mound with a small pole as I remember set in it midway between corners 3 and 8, and that bend was identified to me by Mr. Hoff as being a turn in the center line.

Q. (By Mr. JACK.) What number is that?

A. Between 3 and 8.

Q. (By Mr. JACK.) What is the number of the ones you are talking about?

A. Corners 3 and 8, and this mound I speak of stood midway between the two points here shown on Exhibit 1. The discovery post shown hereon was a 4 by 4 post, standing 4 feet out of the ground in a mound of stone, and in pencil "discovery" alongside of an old post unhewn, identified to me as being the discovery of this claim, by Mr. Hoff.

Q. "This claim" don't mean anything in the record?

A. The Wayne lode. Corners No. 1 and 2 were not found. Their *loci* were determined from the calls in the location notice. I think that is all the notes I have in the book.

Q. Were any changes made in any of the other claims, besides the Hickman, from the way you found them and re-established them on Exhibit 1?

A. I think the only one would be the drawing in of the Obey, slightly.

Q. Drawing it in to the south?

A. Yes, sir; the end line [68] run more north-

(Testimony of Harry J. Pitts.)

easterly than it is shown here.

Q. You did not draw them in at that time you were surveying there?

A. Yes, sir; I set a post in at a point as marked here. I did not see the original corner, and I set a corner at the point marked on Exhibit 1, "4" and marked it at that time "northeast corner Obey," and the others were a considerable distance out.

Q. You mean northeast or northwest?

A. Northeast corner. The northwest corner is as I found it, a large hewn post and stood as here indicated.

Mr. DEY.—You may cross-examine.

Cross-examination.

(By Mr. BUDGE.)

Q. Mr. Pitts, was this the first survey that you made at the time you were up there in July, 1910, of this ground?

A. Yes, sir; I think that was the first time I was ever upon the ground.

Q. You never had anything to do with any other surveys prior to 1910?

A. Of this particular ground?

Q. Yes. A. No, sir.

Q. And were there two surveys made at that time?

A. I made a preliminary survey identifying the corners, and in setting them firmly, and afterwards an order was issued by the Surveyor General to Mr. Charles P. Brooks, who is a deputy in Idaho, and he came up there and went all over the ground, and examined the evidence that I had of various corners,

(Testimony of Harry J. Pitts.)

if there was a question regarding them, and made the survey which was sent in to the Surveyor General.

Q. You made a survey then first without the aid of Mr. Brooks? [69] A. Yes, sir.

Q. And who assisted you?

A. Mr. Hoff and Mr. Cousins, and another gentleman, whose name I don't recollect, but he is working for this company.

Q. Any other surveyor?

A. Oh, there was Mr. Guio, in our office; he was with me at the time.

Q. Now, did you assist in the official survey that was made by Mr. Brooks?

A. Yes, sir; I assisted as a chain man in measuring and marking of the corners.

Q. Did you assist in any of the calculations?

A. Yes, sir; I afterwards assisted in the calculations also.

Q. Now, does this map marked "Exhibit 1" purport to represent the preliminary survey which you made?

A. With the exception of the Hickman lode, the two surveys agree, I think.

Q. You don't answer the question.

A. It does purport to show the condition of affairs that I found as I interpreted it to the best of my ability.

Q. In other words, this map represented what you found by your preliminary survey?

A. Yes, sir; with the exception of the Hickman lode. I did not assist in changing its boundaries.



(Testimony of Harry J. Pitts.)

Q. So far as the Hickman lode is concerned, the representation on this map does not accord with the preliminary survey which you made?

A. It falls wholly within the ground—

Q. Please answer my question.

A. No; it does not. The courses and distances of the boundaries are not the same.

Q. This map, was it made from the notes which you took of your preliminary survey?

A. No, sir; this map was made from [70] Mr. Brooks' notes, and those notes which were sent to the Surveyor General together with notes which were made by myself. The improvements were not returned.

Q. This map was not made from your notes?

A. No; I think my notes were not consulted in the making of it.

Q. Well, have you made any comparison to determine whether or not this map conforms to the notes you took at your preliminary survey?

A. Yes, sir; I am sure that it does.

Q. Just answer the question.

A. I don't think that I have taken out my notes and compared it, no.

Q. You have made no comparison?

A. The comparison—I will qualify that a little. There was a comparison made at the time, the course of certain lines were determined, and certain angles returned in the field, to see if they agreed with me, and I do not remember that they were any different.

Q. I asked you if you made a comparison.

(Testimony of Harry J. Pitts.)

A. No.

Q. Between this map and your notes? A. No.

Q. So that, as a matter of fact, you don't know whether this map conforms to your preliminary survey or not?

A. Well, I do know that it does, because I have in the time I spent with it in connection with the notes, I became familiar with the ground.

Q. You know that, that this map conforms to it, and you would be in a position to testify to it as a surveyor, that it does conform to it, without any comparison of your notes?

A. I could only say this in the survey made by Mr. Brooks—

Q. Can't you answer that question?

A. No, sir; not by yes or no. I would have to tell you how it was. I know we did not disagree as to the courses and distances and angles turned, and therefore his notes and my notes must be practically the same; it was from his notes I made this map.  
[71]

Q. Did you compare your notes with his?

A. On the ground at the time they were being taken, yes, but not since the map has been made.

Q. Did you do it with every course and distance?

A. Where he followed my lines, and in most cases he did.

Q. Did you compare them?

A. Yes, sir; compared them in the field.

Q. And you compared them in all instances?

A. I think in every instance.

(Testimony of Harry J. Pitts.)

Q. And every claim?

A. Yes, sir; I went from one to another.

Q. Every line you ran and every line Mr. Brooks ran was compared, was it?

A. When a course and distance was measured, yes, sir.

Q. The corners,—location corners also?

A. Yes, sir; I accompanied him to each corner.

Q. Mr. Pitts, were the notes compared of those two surveys?     A. No.

Q. No; they were not compared either on the ground, or off of it, were they?

A. In what regard?

Q. Your notes, and Mr. Brooks' as to the courses and distances and the location corners and discovery points.

A. Yes, sir; on the ground he followed the line I followed, I think, almost exactly, and wherever an angle was turned or the distance measured, the course and the distance was checked between our notes to make doubly sure.

Q. In other words, when you were running the north boundary line of the Obey lode, for example, or rather when Mr. Brooks ran it did you compare your notes with Mr. Brooks' survey or his notes to [72] ascertain if they agreed?

A. As to the distance and course between two corners, yes.

Q. And you had your notes present there when the Brooks' survey was made?

(Testimony of Harry J. Pitts.)

A. Yes, sir; I had just finished the preliminary survey.

Q. And consulted them?      A. Yes, sir.

Q. And that was true when you run every line as to all of these lodes?

A. With the exception of the Hickman in its present shape.

Q. And that was true as to the location, for the location of what you call the discovery points on each of these claims?

A. Yes, sir; and I took pains to communicate to him the conditions in which I found each corner and what changes, if any, had been made, so that he was perfectly familiar with what had gone on on the ground.

Q. Have you made any—did you say that you made this map up from Mr. Brooks' notes?

A. Yes, sir; the official notes as he returned them to the Surveyor General, and they are now on file in the Surveyor General's Office of Idaho, except the improvements—

Q. Except what?

A. Except the improvements, the cuts and tunnels, which are from his notes, and which I assisted him in taking.

Q. Now, Mr. Pitts, calling your attention to this Overton lode claim, as marked upon this Exhibit 1, you say you commenced at the northeast corner?

A. The southwest corner.

Q. You meant the southwest corner?

A. Yes, sir.

Q. The southwest corner. Now, was there any

(Testimony of Harry J. Pitts.)

mark there? [73]

A. Yes. Do you wish me to read it again? It is already in the record.

Q. In my notes I thought you had made a mistake, but I find in the notes I had the wrong corner. The southwest corner, I want to know what the mark was?

A. The southwest corner was a 4 by 4, 4 feet out of the ground, sawed pine and a pole, 5 inches in diameter, 6 feet long, which was marked for the Overton, and, as I stated, I believe it is marking the southwest corner of the Overton.

Q. Now, were both posts marked?

A. I have it that each was marked.

Q. How were they marked?

A. Marked in pencil.

Q. What was on each post?

A. Southwest corner of Overton, is all I can remember.

Q. Were they both standing together?

A. Yes, sir; they were in a stone mound.

Q. Nailed together?

A. No. I took out the large pole when I fixed the corner up.

Q. Did you make a measurement of these poles?

A. I used the 4 by 4; not the pole for the final corner.

Q. Did you make any measurements of those poles?

A. You mean to measure the sizes of them?

Q. Yes.

A. Yes, sir; I have measurements of them.

Q. How did you measure them?



(Testimony of Harry J. Pitts.)

A. Why, I had a tape with me and I suppose I used this tape.

Q. It is not what you suppose that I want. Did you measure them with a tape?

A. I can't remember now whether I did or not.

Q. Do you remember whether you measured them at all, or not? [74]

A. Only from my notes which I have taken, giving the sizes of them.

Q. Yes; but haven't you any distinct recollection. It hasn't been so very long ago, Mr. Pitts. Haven't you any distinct recollection as to whether or not you made any measurements of those poles.

A. You mean to ascertain the absolute size of the pole?

Q. Yes; and the length and diameter and width, and all about them?

A. No, sir; it is not customary, but I probably did observe it.

A. I am not asking you what is customary. I asked you what you did, Mr. Pitts?

A. I probably observed it.

Q. Well, did you do it? A. I don't know.

Q. Did you find any notice there?

A. At the corner?

Q. Yes. A. No, sir.

Q. Find any notice at the discovery point?

A. Well, I say "pine pole six feet high, six inches in diameter in cut, set with notice."

Q. With notice? A. Yes, sir.

(Testimony of Harry J. Pitts.)

Q. Have you any distinct recollection as to that notice?

A. No, sir. Since the time I was over there I have been over at least a hundred claims, and all those details have not become fixed in my mind; unless I put it down. I have certain methods of writing those things down which indicates to me, whether there was or was not.

Q. And there were no center end line posts to this claim at all?

A. I have none noted, but I have in mind there was a mound of stone at the center end of this, but I won't state—I won't make a positive statement in regard to it.

Q. Now, what did you find at the other corners?

A. At the [75] northwest corner of the Overton?

Q. Yes.

A. The northwest corner, which is the southwest corner of the Cumberland, I found lying in a small draw below the present position, that is the position in which I find it marked—

Q. Found what?

A. I have this note: "Northwest corner equal to southwest corner of Cumberland," which would indicate to me that I found it marked. Otherwise, I would not have filled it out that way. "Found lying in a small draw below present position," that is the position which is marked on Exhibit 1. I reset it in its original position in mound of stones that was higher up the hill.

(Testimony of Harry J. Pitts.)

Q. Now, what did you find in the small draw?

A. I haven't a note, but I remember that as a 4 by 4 post, 4 feet long.

Q. Measure them?

A. I make the general statement, I don't remember of making any measurements of them absolutely.

Q. So that when you say a post 4 by 4, 4 feet long, that is just your guess at it as to the length and dimensions of it?

A. Yes, sir; I am used to seeing them.

Q. And that is true of all of them?

A. Yes; I will say that is true of all. Where I say 3 inches it was when I observed it was less than the ordinary size of a post as we usually set them up.

Q. And the others might have been less for that matter?

A. A trifle less. Where a sawed pine post is used it is a quarter of an inch less each way, usually, than the dimensions called for; that is, dimension of lumber is usually smaller than it is named, and a 4 by 4 post is often  $3\frac{3}{4}$  by  $3\frac{3}{4}$ . [76]

Q. Now, when you say that the post was 4 feet out of the ground, did you make any measurement to determine that?

A. Not absolutely; no, sir. I judge that by my instrument usually.

Q. That was just your guess at that also?

A. Yes, sir.

Q. Now, in these corners that you established when you were making this preliminary survey, did you establish them according to the survey which you

(Testimony of Harry J. Pitts.)

made, or according to the identifications which were made by Mr. Hoff?

A. There was a different condition at each corner, and if there was no post found at the corner, I used the best material I had at hand to re-establish it. For instance, when I did not find the southeast corner of the Cumberland and the northeast corner of the Overton, I had the course of the south line of the Overton, and the distance called for in the notice of the Overton, and I had a reasonable—I was reasonably sure of the corner at the northwest corner of the Overton, therefore, I drew a line parallel with the south line and gave it the distance called for in the location notice.

Q. So that you established that corner according to the survey?

A. Yes, sir; and that was the reason, I will say that was the reason I was sent there, to get the corners in permanent shape from the best knowledge of the conditions that I could secure.

Q. Now, I am asking you whether or not your establishment of these corners ever varied by the identifications given to you by Mr. Hoff from the survey which you made?

A. In the case of the Wayne, between corners 8 and 3 Mr. Hoff identified the bend in the lode line, and from that and the courses running to the other angles of the claim, I established by survey, the corners. He [77] did not show me where he thought 8 or 3 was, but he did show a corner midway between them.

(Testimony of Harry J. Pitts.)

Q. He showed you where corners 4 and 7 were?

A. Yes, sir; I could see those plainly, but he identified them to me as being at that angle.

Q. As being those corners?      A. Yes, sir.

Q. Did they agree with your survey?

A. They are just as I have them here exactly.

Q. Did you survey it out to see whether the corners were actually the distances which they were supposed to be from certain other corners?

A. Not in that case. Where monuments were found I took them to be in their proper places.

Q. You did not run any line?

A. I run lines to make them all agree.

Q. Did you run any lines down to these corners pointed out to you on the Wayne?      A. Yes, sir.

Q. Between corners 4 and 7?      A. Yes, sir.

Q. Did they agree with your notes?

A. The location notice, you mean?

Q. Yes.

A. I don't remember whether they did or not.

Q. And did the distance running to these corners from some other given point, did the distance agree with where Mr. Hoff said they should be? For example, running down on the Wayne lode where is corner 3 and corner 4? (Witness points.)

Q. Now, if you were running from corner 2 to corner 3 according to the notice, you had a certain distance to run, didn't you?

Q. Did that distance, running that distance from 2 to 3, take you to where Hoff said this corner was?

A. I don't remember. [78] now. I compared it



(Testimony of Harry J. Pitts.)

at the time, and I think they were in all cases approximately right; a man who makes a location of a claim is not supposed to be a surveyor.

Q. Answer the question. Can't you remember whether they all agreed, or did not agree?

A. No, sir. If you have the notice I can tell you by comparing the courses. The courses are all plainly stated on here as I established and found the monuments.

Q. Well, then, does this map, Mr. Pitts, represent the corners which were established by your survey, or does it represent the corners which were identified by Mr. Hoff in the cases where he did identify the corners?

A. Yes; he identified the corners with the exception, as I say, of these corners up here.

Q. The corners up where?

A. At the north end of the Obey; that is, at the northeast end.

Q. The northeast corner, and the north center end represents the corners there as you found them, or as they were identified by Mr. Hoff?

A. Well, I would have to go through then and specifically show each one. I found these two corners at the south end of the Jimitown standing exactly as shown and I found the north end line of the Fentress, and the south end line of the Fentress, and the south end line of the Overton, or north end line of the Mt. Pleasant—

Q. You do not evidently understand what I am

(Testimony of Harry J. Pitts.)

trying to get from you, Mr. Pitts; I am trying to find out whether these corners which are marked on this Exhibit 1 are the corners which you [79] found or established by running the actual line to the corner, or whether you have marked on this map the corners which were identified by Mr. Hoff independently of your survey? A. I can give you—

Q. Answer that question.

A. Yes, sir; all the corners which were standing and which I found and identified myself, are represented on here as I found them. There were certain signs of corners which showed them to be corners, being mounds assembled by hand, and which I could not identify, but which Mr. Hoff identified to me. Those corners are shown on here in the positions in which I found the evidences of them. After that when there was no mound and Mr. Hoff could not identify to me the original place of the corner, then from the location notice, or the nearest material at hand, I re-established it.

Q. Now, then, where Mr. Hoff pointed out corners to you, various corners, and identified them as particular corners—

A. Yes.

Q. Of particular claims, did your survey agree with those corners which he pointed out? A. Yes, sir.

Q. In all instances?

A. Yes, sir. The claims show that they are not all 1500 by 600 feet, in regular distances; they show irregular distances.

Q. Did they agree in all instances with Mr. Hoff's

(Testimony of Harry J. Pitts.)

identification on your survey?

A. Yes, sir; generally, approximately with the location notice.

Q. I don't ask you approximately. Approximately is a very uncertain statement. Let us have something definite about it. Did [80] they agree?

A. I don't seem to catch the exact question. I am trying to answer it for you. State it again.

Q. I am asking you whether or not when Mr. Hoff pointed out to you a corner as a particular corner of a particular claim— A. Yes.

Q. Whether your survey showed the corner to be where Mr. Hoff pointed it out?

A. I don't remember any instance of any corner that he showed me that would not seem to agree approximately or nearly, with the calls in the location notice. I never do expect a location notice to give the exact courses and distances between monuments, and I never found one to do so, unless it was made by a surveyor.

Q. The best you can say then is that it agreed approximately?

A. With the calls in the location notices.

Q. What do you mean by approximately?

A. For instance, running to the south end line, they usually call for a distance of 1500 feet, and in some of the courses it was 80 feet short of being 1500 feet.

Q. In other words, you would find the mound which Mr. Hoff said was a particular corner, 80 feet short of where the survey would be?

A. Yes, sir; making a 1500 foot claim.

(Testimony of Harry J. Pitts.)

Q. Or taking the location notice?

A. Yes, sir; that is correct. The claims, I think, in all cases were 600 foot claims, and the call is for 600 feet, but in many cases the distance is short from 30 to 50 feet.

Q. In other words, the map represents the 600 claim short of what the location notice would estimate it to be? Not 600 feet?

A. Narrower than the location notice called for, yes, sir. [81]

Q. Therefore, if you took the mound pointed out to you by Mr. Hoff, it would make the claim smaller than the location notice called for. Is that true?

A. Yes, sir; if there was any case where it called for a longer distance; I can't remember any of them now.

Q. Have you a distinct recollection that all these posts which you say were marked were marked facing the interior of the claim?

A. I have no recollection of where I found a post standing that it is marked otherwise, or where it was facing, other than towards the interior of the claim, and when I put down in my notes that it was properly marked, I mean that it was marked as a certain corner for a certain claim, and that the markings were facing towards the claim.

Q. Now, calling your attention to the Jimtown claim, you say at the northwest corner of the Jimtown you found a 4 by 4, 4 feet long in the bed of the creek?

A. Yes, sir.

Q. And that you set it out of the creek to prevent it from being washed away again? A. Yes, sir.

(Testimony of Harry J. Pitts.)

Q. Now, there were no marks on that post, were there?

A. I think the marks were all washed off.

Q. Why do you say "washed off"? How do you know it?

A. My recollection of the post is that it had been there for some time.

Q. What?

A. My recollection of the post is that it had been there for some time, and that the water was running over it.

Q. Do you know whether any marks on it were washed off or not?

A. I can't state that there were any marks at all, if there [82] were any marks on it. I could not say if there had been any marks on it previously.

Q. Then you don't know whether any marks were washed off or not?

A. Only that it was similar to other posts I found in the neighborhood.

Q. When you say that corner, where you found the post in the creek, did that bring the corner down into the bed of the creek, the other corner?

A. The bed of the creek is about 230 feet horizontally from the discovery, and I think it must have been set out further originally, and I set it up on the far side from the discovery on the creek.

Q. Where would have been the true corner with reference to the creek?

A. It would have been 300 feet out and about 40 feet easterly of the point as I state, probably more than 40 feet.



(Testimony of Harry J. Pitts.)

Q. And so you drew your corner in some?

A. I did not wish to put it out when I had no more evidences than that.

Q. Now, when you reset these posts, did you use the same posts that you found there?

A. I think I noted, and it is in the record where I found the 4 by 4 posts, sawed pine, they were usually too long, longer than the Government requires them to be set, and I had to take off a foot or so from the top, and then I made them more firm by setting them further in the ground and building a good mound of stone around them.

Q. How far out of the ground would they extend?

A. We usually leave 3 to  $3\frac{1}{2}$  feet out of the ground.

Q. From the base of the mound?

A. No; from the ground. [83] I set them about 18 inches in the ground on the average, unless they fell on solid rock, which prevented me from doing so. We usually set them 18 inches in the ground, and put a mound of stone around them of about  $2\frac{1}{2}$  feet base.

Q. The stakes were originally how long before they were set?

A. The stakes in many cases were 5 feet long. I have one particular one—

Q. You say you sawed some of them off?

A. I say I have one particular one in mind, which is the northwest corner of the Cumberland. I sawed off a foot and reset it.

Q. Leaving it what length?

A. Leaving it about 4 feet long.

Q. And then you set that 18 inches in the ground?

(Testimony of Harry J. Pitts.)

A. Yes, sir. I think all of the corners as they now stand, after having been set, stand about 3 feet on an average out of the ground in the mound of stone.

Q. You don't know, Mr. Pitts, of your own knowledge, when any of these posts were placed on this ground that you found lying down or standing?

A. No, sir. As I say, my first visit there was in July, 1910.

Q. Now, in some places, and I call your attention particularly to the Columbia, you say at the corners 4 and 5 you found stone monuments. Is that correct?

A. Yes, sir.

Q. Now, just describe them.

A. About  $2\frac{1}{2}$  feet base and about 18 inches high.

Q. And is that true as to all of the stone monuments which you found? Is that about the size of them, or the height of them? A. Yes, sir. [84]

Mr. BUDGE.—I think that is all.

Mr. DEY.—That is all.

H. J. PITTS. [85]

[**Testimony of Morse S. Duffield, for Complainants.**]

MORSE S. DUFFIELD, plaintiff, produced as a witness on behalf of complainants, being first duly sworn, testified:

Direct Examination.

(By Mr. DEY.)

Q. What is your full name?

A. Morse S. Duffield.

Q. What is your business?

A. Mining and mining engineering.

(Testimony of Morse S. Duffield.)

Q. How long have you followed your profession as such?     A. Fourteen years.

Q. What education did you have?

A. I graduated from Harvard University in 1897.

Q. And in what places have you followed your profession?     A. In the Western States and Alaska.

Q. Were you one of the locators of the lode mining claims described in the amended bill of complaint herein?     A. Yes, sir; I was.

Q. Shown on Exhibit 1 before you?

A. Yes, sir.

Q. Who joined you in locating those claims?

A. Mr. Lewis A. Jeffs.

Q. When did you go upon the ground?

A. November 14, 1907.

Q. Who was with you?     A. Mr. Jeffs.

Q. Anyone else?     A. No, sir.

Q. What did you and Mr. Jeffs do in the way of making mining locations, or lode locations?

A. On November 14th—

Q. What year?

A. 1907, we started in on the outcrop on the Overton lode, just north of the Montpelier Canyon wagon road, and walked northerly along the outcrop by Gertch Hollow, until we came to the north quarter post of section 31, township 12 south of range 45 east. With that point as a basis, we located the discovery of the Overton lode on the outcrop of the phosphate [86] vein. We erected there a substantial post, a cottonwood post, and proceeded to survey our—

Q. Well, wait a moment. Give us a little more in

(Testimony of Morse S. Duffield.)

detail there. Tell us about the post, how it was erected, its size and dimension.

A. The post was a good sized cottonwood.

Q. That don't express anything.

A. About 8 inches in diameter at the butt, and about 6 inches at the top, and about 5 feet long. It was cut right near there upon the ground.

Q. Then, tell us about the post further—what was done with it?

A. Well, we set it up in a mound of rock at its base, right on the outcrop of the vein. Then, after we had measured our claim, we put our location notices—

Q. What was there there in the way of a discovery of mineral?

A. Well, the phosphorite outcropped there; the phosphate rock outcropped at that point.

Q. Was it in place?      A. Very much so.

Q. Go ahead.

A. Well, then, we walked north along the outcrop and established the northeast corner of our claim, the Obey claim.

Q. What?      A. Obey claim—Obey lode.

Q. What did you do there?

A. We erected here a pine post, a hewn pine post, about 6 or 8 inches at the butt, and about 6 inches at the top, and about 5 feet long, set it firmly in the mound and proceeded from what we call here post No. 2—

Q. Mark it in any way?

A. Marked it—



(Testimony of Morse S. Duffield.)

Q. At that time?

A. —at the time, and blazed it facing the interior of the claim and marked “northeast corner post No. 1 of Obey lode.” [87]

Q. What did you mark it with?

A. A carbon stick, a heavy carbon stick. At the north end center, 300 feet westerly from post 1, we erected the north end center, which was also a hewn pine of good substantial size about 5 or 6 feet at the top—or 6 or 7 feet at the top.

Q. 5 or 6 feet?

A. 5 or 6 inches in diameter at the top, and about 6 or 8 inches at the butt, and set it firmly in the ground.

Q. About how long?

A. About 5 feet long, set it firmly in the ground and marked it “north end center of Obey lode.”

Q. Where was that?

A. On this Exhibit 1, it would be slightly north of a point which would show here.

Q. Where was the mark placed? Which way did it face? A. Faced the interior of the claim.

Q. Any mound or stone there?

A. No; there was not there.

Q. Proceed.

A. From there we proceeded westerly and established out post No. 2, the northwest corner of the Obey lode, which was also a hewn pine, similar to the others. It was cut right near there on the ground.

Q. How long?

A. About 5 feet long, and about 6 inches in diameter at the top, blazed and marked facing the interior



(Testimony of Morse S. Duffield.)

of the claim; marked "Obey lode, post No. 2, north-west corner," with the names of the locators and dates.

Q. With the names of the locators and dates?

A. Yes, sir.

Q. On each corner?

A. Yes, sir; all of them.

Q. Go ahead.

A. And then we came back to the discovery and established our end center, south end center, which was a cottonwood, a crooked cottonwood pole, about 4 inches in [88] diameter, and blazed it and marked it "south end center" facing the discovery. We also—

Q. How long was that?

A. That was about 5 feet long, and we set it in the ground with a base of rocks around the bottom of it. Then, we proceeded southerly along the outcrop, and established the discovery of the Obed lode.

Q. What did you do there in the way of making a discovery?

A. We erected a cottonwood post about 5 feet at the top and about 5 or 6 feet long, and set it firmly in the ground.

Q. What do you mean by 5 feet at the top?

A. 5 inches at the top in diameter. I keep mixing those up.

Q. Go on and describe that post.

A. Set post firmly in the ground with some rocks around the base, right in the outcrop of the phosphate rock. Nailed a can to it and put our notice in the

(Testimony of Morse S. Duffield.)

can, just as we had done in the Obey discovery.

Q. Did you do that in regard to the Obey discovery? A. Yes, sir.

Q. Put up a notice?

A. Put a notice in a can, put it in a tin can and nailed the can up on the post.

Q. What was the length of the post at the Obed?

A. About 5 feet long.

Q. The Obed? A. The Obed.

Q. About 5 feet long?

A. Yes, sir. And then, we established post No. 4 of the Obed, and post 1 of the Obey.

Q. A common corner?

A. A common corner; we established it there. Put a cottonwood post there about 5 feet long, and about 5 inches in diameter; blazed it facing the interior of each of the claims; it lies in two angles, [89] and we marked it "northeast corner of the Obed lode, post No. 4" and the southeast corner of the Obey lode, post No. 1."

Then, we returned to the outcrop of the vein, followed that along, measuring as we went with a 400 foot steel tape, and established the discovery post of the Jimtown lode. This was a cottonwood post about 5 inches in diameter at the top, and about 5 feet long, firmly set in the ground right on the outcrop and to that we nailed a tin can in which we posted the notice of the Jimtown lode, and also blazed it northerly and southerly, marking it the south end center of the Obed lode, and north end center of the Jimtown lode.

Q. And discovery also?

(Testimony of Morse S. Duffield.)

A. We put the notice in a tin can.

Q. The same stake being used for the south end of the Obed and the north end of the Jimtown—

A. For the whole three.

Q. The two end centers?

A. And the discovery of the Jimtown?

Then, we proceeded to measure about 300 feet easterly, and we established there a cottonwood post 5 inches in diameter, and about 5 feet long, blazed it on two angles, angling sides, facing the interior of the Obed and the Jimtown, and marked it post No. 4, the northeast corner of the Jimtown lode, and post No. 1, the southeast corner of the Obed lode, giving the names of locators and date of location.

Then, we returned to the outcrop and proceeded to measure our 1500 feet, establishing the south end center of the Jimtown lode on the outcrop. This was a cottonwood post.

Q. Give the dimensions and all about it.

A. The cottonwood post was about 4 inches in diameter at the top, and about 5 feet [90] long, and was blazed on the north side facing the Jimtown lode claim, and marked "South end center of Jimtown lode," with the names of the locators and dates.

We then proceeded along the outcrop to the point marked on Exhibit 1 as discovery of the Fentress lode. There we erected a post, a pine post that was 5 inches in diameter at the top and about 5 feet long, and blazed and marked "discovery Fentress lode."

Q. Larger at the butt, was it? A. Yes, sir.

Q. Go ahead?

(Testimony of Morse S. Duffield.)

A. Nailed a can to it, and enclosed our discovery or location notice in the can.

Then, we proceeded along the outcrop until we had measured to the end of the Jimtown, and established the south end center of the Fentress—established the south end center of the Fentress with a stone monument, a pile of rocks built up by hand, about 4 feet high. In that we enclosed the notice in a can, calling it the south end center of the Fentress lode.

Then, we proceeded southwesterly along the outcrop of the vein and established the discovery of the Cumberland lode. Here we erected a 4 by 4, 4 feet and 8 inches long and marked it "Discovery of the Cumberland lode" with the names of the locators and dates, and nailed to it a can in which we enclosed our location notice.

From there we proceeded southerly, southwesterly, and established the south end center of the Cumberland lode. This was a large round post about 8 inches in diameter. We blazed it on the south side and marked it "south end center of the Cumberland lode" and north end center of Overton lode."

Q. And facing each of the claims respectively?

A. Naturally, [91] yes, sir. From there we proceeded southerly, establishing the discovery of the Overton lode. Here we used a 4 by 4, 4.8 feet long and erected it firmly in the ground, and marked it "discovery post, Overton lode"; nailed a can to it and placed our notice in the can.

Then, we proceeded southerly, and by the wagon

(Testimony of Morse S. Duffield.)

road erected a pile of rocks 4 feet high, and put a can—a piece of paper in a can, and put the can among the rocks, and called it the south end center monument of the Overton lode, with the names of the locators and date of location.

Then we proceeded to establish a discovery on the Mt. Pleasant lode. Here we used a 4 by 4, 4.8 feet long, and marked it “discovery Mt. Pleasant lode,” with the names of the locators and dates, and nailed a can to it and placed our location notice in the can.

Then, we established the south end center which would be at a point southwesterly from what Exhibit 1 shows here. We established an old fence post there for the south end center of the Mt. Pleasant. The fence post was about 4 inches in diameter; it was not exactly round, but we faced it up on the side facing the interior of the Mt. Pleasant lode, and called it the south end center of the Mt. Pleasant lode.

Q. Did you mark it?      A. We marked it.

Q. In what way did you mark it?

A. We wrote on it with our carbon stick. That is all we did that night.

Q. That night?

A. That day. It was about dark then and we went home, went to Montpelier.

The next day, on the 15th of November, we came out from [92] the town.

Q. “We” means whom?

A. Mr. Jeffs and I; and proceeded up what we call Tennessee Gulch, and established the discovery for



(Testimony of Morse S. Duffield.)

the Arkansas lode. For this we used a pine post about 8 inches in diameter, erected it right on the outcrop of the vein. The post was about 5 feet long. We blazed it and marked it "discovery Arkansas lode" and put the names of the locators and date on it, and nailed the can to it, and put our location notice in the can.

Q. How did you support it at the base?

A. With rocks around the bottom, piled some rocks around the bottom.

Q. You did not set it in the ground?

A. Yes, sir; partly in the ground, about 8 inches in the ground and rocks around it; and then we proceeded to make our—continued our trip along the outcrop of the vein, and we measured along the outcrop of the vein, and discovered we had to have an angle in the claim, and we marked the center line of the lode line, with a discovery monument, or with a monument of rocks piled up approximately 4 feet high, and included a paper notice in a can, naming it the center angle monument of the Arkansas lode. And then we measured along the outcrop to complete our claim, and established at the north end center, established the north end center of the Arkansas lode. This was a pine post, hewn on one side, and we wrote on it "Arkansas lode" on the side facing the interior of the claim; wrote on it "Arkansas lode" and gave the names of the locators and the date, and we called it or named it the north *north* center end of the Arkansas lode.

Then, we proceeded to the Hickman lode, and es-

(Testimony of Morse S. Duffield.)

tablished [93] our discovery in the gulch at this point, marked "discovery" on Exhibit 1. Here we used for discovery post a hewn pine post about 5 feet long and about 8 inches in diameter; blazed it and marked it "discovery Hickman lode"; nailed a can to it and placed our location notice in the can.

Then, we proceeded along the outcrop of the Hickman and established the end center at a point—

Q. Which end center?

A. The south end center of the Hickman lode, at a point which I will have to designate upon this to show the point, if you want me to mark it.

Q. Can you describe it without marking it?

A. Well, a point—

Q. How far from the discovery, would you say?

A. I will have to look at the location notice and figure that out. I have forgotten just what that was.

Q. You established what?

A. The south end center of the Hickman lode, which was a cotton-wood post about 5 inches in diameter and which extended about 4 feet above the ground; blazed it and marked it south end center, Hickman lode, and marked it on the blazed side facing the interior of the claim.

Then, we proceeded along the outcrop and established the discovery of the Columbia lode. Here we used a 4 by 4, 4 feet 8" inches long, and marked it "discovery post, Columbia lode"; nailed a can to it and placed our location notice in it. That is all we did that day.

(Testimony of Morse S. Duffield.)

Q. That is on the 15th?

A. And then on the 16th of November—

Q. That ends what you did on the 15th?

A. Yes, sir.

And then on the 16th we returned to the ground and established a 4 by 4, 4 feet 8 inches long at the discovery of the Wayne [94] lode, called it discovery of Wayne lode and marked it discovery post and nailed a can to it, in which we placed our location notice; and erected a stone monument for the north end center of the Wayne in which monument we placed a can with the names of the locators and dates.

Q. What did you make the monument of?

A. Stone and rock, loose rock.

Q. What dimensions?

A. Approximately 4 feet high.

Then, we proceeded southerly along the outcrop and established two angle monuments to mark the side angles, and then we proceeded along the outcrop southerly again and established two more angle monuments, and then we proceeded to the end line where we erected a cottonwood post.

Q. Whereabouts on the end line?

A. At the corners.

Q. At the corners?      A. The two corners.

Q. What claim?

A. The Wayne. Blazed them and marked them to designate what they stood for.

Q. State what you did?      A. We marked the—

Q. Which one?

(Testimony of Morse S. Duffield.)

A. The southeast corner was marked "Southeast corner, Wayne lode" on the blazing which was facing the interior of the claim, and marked the southwest corner "the southwest corner of the Wayne" on the blazing facing the interior of the claim.

Q. You have given the dimensions of those posts, you think?

A. They were substantial posts, one of them was about 8 inches at the top, and must have been 10 inches at the butt, and they often were about 6 inches at the top in diameter.

Q. How long?

A. Both about 5 feet long. [95]

Then, we did some further surveying on that day—that was all we did that day. That finished on the 15th.

Q. With what kind of instrument were you doing that work? A. Just a Brunton pocket compass.

Q. What did you have to measure with?

A. We had a 400 foot steel tape.

Q. Well, proceed rapidly?

A. Then we returned to the ground upon the 20th of November, and we brought out a lot of 4 by 4's, which we had bought at the lumber-yard in Montpelier, and cut them up into proper lengths for posts, making three posts out of each, and those were distributed along the road.

Q. Cut at even lengths, or how?

A. Cut so as to divide the posts evenly into three posts of 4 feet and 8 inches long. We brought them out and distributed them along the road until we

(Testimony of Morse S. Duffield.)

come to Gertch Hollow; and here we had to pack them up; and for three days—I can't remember exactly each post—we set from the twentieth to twenty-fifth. We surveyed and set posts.

Q. Now, Mr. Duffield, during that period, did you set a corner post for each of the claims set out in the amended complaint and shown on Exhibit 1, that were not previously set?

A. During those days we—

Q. During that time?

A. We completed our survey thoroughly.

Q. I say, did you set corner stakes?

A. Yes, sir; set all the corner stakes that had not been set before.

Q. And all those parts were of the dimensions you have described?

A. No, sir; not all of them. Those on the Overton, Cumberland, Fentress, Jintown, Obed and Obey were. [96]

Q. Hold on— A. Were 4 by 4's.

Q. Well, beginning with the— A. Overton.

Q. Yes; you completed the setting of the corner stakes making the claims all of a uniform size, did you? A. As near as we could measure them.

Q. What size?

A. 600 feet in width and 1500 feet in length along the outcrop.

Q. Did that by measurement?

A. We did that by measurement.

Q. Did you mark the corner posts that you set at that time?



(Testimony of Morse S. Duffield.)

A. Yes, sir; we marked them plainly with a heavy carbon stick.

Q. What kind of marks? What marks did you put on to identify them with the claim?

A. Put on the name of the claim, the corner of the claim that it was, and the names of the locators and the date of the location.

Q. That was done in each instance on that particular group of claims?

A. For this group here. (Indicating.)

Q. How were the markings as to facing the discovery or the interior of the claims?

A. They were all facing the interior of the claims.

Q. Facing the included area?

A. On the Mt. Pleasant—

Q. Wait a moment. As to those stakes; how were they set and supported?

A. They were set in the ground about 6 inches, some of them right alongside of old stakes. The ground had been located before.

Q. Set in the ground and otherwise supported?

A. Sometimes rocks around the base, and sometimes we tacked them to the original stakes.

Q. Tacked them?

A. Nailed them with a long spike, so that [97] they would be as near to the original stakes as possible.

Q. What did you say about a mound of stones around some of them?

A. Wherever it was handy to get rocks to place around them we did.

(Testimony of Morse S. Duffield.)

Q. You could not readily recollect, could you?

A. No, sir; I could not.

Q. Proceed with the rest of them?

A. To complete the staking of the corners of the Mt. Pleasant, Arkansas, Hickman, Columbia and Wayne lodes, we cut pine posts up near the head of Tennessee Gulch and cottonwood posts from a little grove of cottonwoods just east and up the mountain from the Hickman lode, and from these two sources we got all our posts for the Arkansas, Mt. Pleasant, Columbia and Wayne.

Q. What dimensions were those posts? Any uniform dimensions?

A. Well, as the timber would run—we made an attempt to get posts that would—

Q. What did you get?

A. We did get posts that would go 5 or 6 inches at the top in diameter.

Q. Larger at the bottom?

A. Most of them larger at the butt.

Q. And how long? A. 5 or 6 feet long.

Q. Did they all average that?

A. They would all average 5 feet there.

Q. Long? A. Yes, sir.

Q. And in dimensions at least what?

A. In dimensions, at least they would average 6 inches in diameter.

Q. Now, those posts then for those claims last mentioned were set by you and Mr. Jeffs, were they?

A. Yes, sir.

Q. And how were they supported or set?

(Testimony of Morse S. Duffield.)

A. They were— [98] we had a hand pick and dug holes 6 or 8 inches and set the post in the hole, and piled a few rocks around the base to support them and blazed them and marked them.

Q. What did you blaze them with? A. An axe.

Q. And then each post was marked?

A. Each post was marked on the side facing the included area of the claim to which it belonged.

Q. And marked in what manner?

A. With a heavy carbon stick.

Q. What marking?

A. The name of the claims, the name of the locators, and the date, and the corner.

Q. Designating the corner with the number and direction?

A. Both the number and corner, and name of corner.

Q. Now, was any post set other than the four corners of those last mentioned claims?

A. On the Arkansas lode we had to set two angle posts, which we did erect and mark.

Q. How did you ascertain the place to erect those?

A. By measuring from our preliminary monument on the center end line to the angle monument on the side.

Q. Measure how far? Measure 600 feet?

A. 300 feet each way.

Q. Oh, 300 feet each way? A. Yes, sir.

Q. And the posts were set at the angles in the side lines of the Arkansas? A. Yes.

Q. Any other claims have any posts other than the

(Testimony of Morse S. Duffield.)

corner posts which you and Mr. Jeffs set?

A. The Columbia and the Wayne had; the Columbia had four side angle posts, and the Wayne had four side angle posts.

Q. So that in addition to the four corners of the claims on any and all of the claims that had angles in the side lines, posts [99] were there set and marked, were they? A. Yes, sir.

Q. Blazed and marked? A. Yes, sir.

Q. In the way you have described? A. Yes, sir.

Recess until 2 P. M. [100]

Q. Mr. Duffield, have you got the location notices that you posted?

A. I have copies of them that I recorded.

Q. You made copies? A. Yes, sir.

Q. When?

A. At the time that we wrote them out.

Q. Did you compare them with the originals that you made?

A. Yes, sir; compared them with the originals that were posted in the different monuments.

Q. And they are true and correct copies?

A. Yes, sir.

Q. And what did you do with the copies? Did you record them? A. Yes, sir.

Q. Have you them? A. Yes, sir.

Q. Please produce them? (Witness does so and the same were handed to counsel for defendant.)

Mr. BUDGE.—We have no objection to them.

Mr. DEY.—We now offer the location notices in

(Testimony of Morse S. Duffield.)

evidence, separately marked. [101]

\* \* \* \* \*

Q. Have you been upon the ground since the official survey was made of those lode claims by Mr. C. P. Brooks? A. Yes.

Q. Have you made any examination of those—were you there at the time the survey was made?

A. No, sir.

Q. Have you made any examination for the purpose of determining upon the ground whether or not the posts that you testified as having been set by you and Mr. Jeffs are substantially at the places where the patent posts of the several lode claims, shown on Exhibit “A,” are situated? A. Yes, sir.

Q. How did you find them in that respect?

A. Why, a great many of the original posts are no longer there, but identical locality is practically the same.

Q. I am speaking about the locality.

A. The locality is practically the same.

Q. Are there any exceptions, and if so, state what the exceptions are.

A. Well, the Hickman is the only exception.

Q. The Hickman, in what way?

A. The Hickman was originally located as 1500 by 600 feet, a full lode claim, but was found to overlap there a patented placer, so that the part which lapped on the side of the placer was drawn in and is 50 feet.

[127]

Q. The question is where you set the Hickman cor-



(Testimony of Morse S. Duffield.)

ner posts, or center end posts, or other posts?

A. Where did we originally set them?

Q. Yes, sir; if you can make it clear refer to Exhibit 1.

A. Well, practically the point designated by Mr. Pitts as the southeast corner of the Hickman—that is practically the spot at which we located our corner No. 4 originally, corner No. 4 of the Hickman. The spot designated by Mr. Pitts on Exhibit 1 as L. C. Hickman, northeast corner, that is practically the locality at which we established our post No. 1 of the Hickman, the northeast corner.

Q. Well, now take up the southwest and northwest.

A. Well, the southwest—I will have to designate on Exhibit 1 that approximate locality of post No. 3. The original post No. 3 of the Hickman is a point about 600 feet westerly of the point that we designated as the post No. 4 of the Hickman. That would be practically in here.

Q. Is there anything about the locality on the ground to identify it by?

A. Well, it would be very close to the end line of the Maury lode, which is marked on Exhibit 1.

Q. Take up the other one.

A. The other corner would be—

Q. The northwest?

A. The northwest corner post, original post No. 2 of the Hickman lode, as originally located, would be approximately at a point near the end center of the Tennessee, a little westerly of the Tennessee; it would be about a hundred feet westerly of what is marked

(Testimony of Morse S. Duffield.)

on Exhibit 1 as post No. 7 of the Tennessee.

Q. (By Mr. BUDGE.) How far westerly?

A. About a hundred feet [128] as I measured it upon the ground. Shall I designate it?

Q. What do you purpose to mark it?

A. I purpose to mark it "original post No. 2, Hickman lode."

Q. What is the scale of the map?

A. 200 feet to the inch. I have marked it "Original No. 2, Hickman lode."

Q. Any other exceptions?

Mr. BUDGE.—You had better mark the other one too.

Mr. DEY.—The southwest?

Mr. BUDGE.—Yes.

A. I have marked it original No. 3, Hickman lode.

Q. Now, Mr. Duffield, are there any other exceptions that you observed upon the ground in the location of the patent post, as set, and the original post as placed by you?

A. The corner marked on Exhibit 1 as No. 5, the southwest corner of the Arkansas, I think originally on the ground was perhaps a little closer to the gulch, a little further south, about 100 feet further to the south, as I remember it.

Q. Anything else?

A. Well, there was probably a few corners that were originally too wide, that have been drawn in now on this official survey.

Q. Well, I am speaking from your examination that you saw on the ground and the patent post?

(Testimony of Morse S. Duffield.)

A. Well, I can't testify to any more. Those are the only cases that I took notice of at that time.

Q. Outside of those exceptions that you have mentioned, what is your best recollection from your investigations on the ground as to the patent post being substantially in the position of the original post as set by you and Mr. Jeffs?

A. Well, as I went over the outcrop, the posts that I could [129] see, all seemed to be substantial as they were originally located, with a few minor exceptions which I did not measure out.

Q. Was the ground covered by these several lode locations vacant and unoccupied at the time that you and Mr. Jeffs located the ground?

A. The lodes which we located were unoccupied and vacant at the time we located each location.

Q. And was the ground covered by those several lode locations vacant and unoccupied?

A. Yes, sir; the ground was vacant and unoccupied.

Q. I understood you to say that you had in some instances set posts in close proximity to previously set posts? A. Yes, sir; we did.

Q. What were they?

A. Those were old lode locations which were abandoned.

Q. Prior to the time that you—

A. Prior to the time that we located our lodes over there.

Q. Just explain the topography of the country with reference to the lode locations here situated.

(Testimony of Morse S. Duffield.)

A. There is a prominent canyon cutting right through the group of claims here, and marked on Exhibit 1, as Montpelier Canyon Creek. The canyon approximately follows the line of the creek. The wagon road follows the side of the canyon right through the group of claims; and north of the canyon and south of the canyon is a hilly country. The hills south of the canyon are lower and more rolling than the ones north. North of the canyon there is quite a prominent mountain and along the side of Gertch Hollow, dipping westerly underneath the mass of the mountain is exposed the outcrop of the veins of phosphate rock.

Q. Situated in the mountain?

A. Situated in the mountain. [130]

Q. Any range of mountains that it is known as?

A. That is known as the Preuss Range.

Q. In Bear Lake county, Idaho?

A. Bear Lake county, Idaho, yes, sir.

Q. What is the mining there?

A. The mineral is phosphorite, phosphate rock.

Q. Now, what indications of the existence of a lode or vein was there developed at the time you made those locations?

A. There was a prominent outcrop of phosphorite, which could be easily traced, easily distinguished from the walls on account of its black color, and which at numerous places showed in place between the footwall and the hanging-wall, very easily traceable from one end of the map to the other.

Q. Well, easily traceable in reference to the claims

(Testimony of Morse S. Duffield.)

you located, is what I want to know.

A. Well, those claims were located right along that outcrop which was everywhere locateable, everywhere discernible in most places over the greatest extent by the actual outcrop and places where it was slightly buried, why, you could trace the hanging-wall or footwall of it.

Q. Now, you say it is easily traceable by what? In what manner? Inspecting them?

A. Yes; by visual inspection.

Q. In what manner? Make it clear.

A. Well, you could see the phosphate rock, see float and the outcropping rock in place continuously along the zone of the outcrop.

Q. And does this rock differ from the country rock? A. It is dark and heavy.

Q. Well, how was the country rock?

A. The country rock is a chert, which is easily recognized as the hanging-wall, and the [131] lime, the white lime, that is easily recognized as the footwall.

Q. So it is readily distinguishable and traceable throughout the entire length of these lode claims, is it? A. Yes, sir.

Q. And in each instance was the discovery placed at the outcrop? A. Yes, sir; in every instance.

Q. What work was done, if any, to develop this vein or lode in place?

A. Enough work was done on each claim to comply with the—

Q. I will ask you what work was done on those claims?



(Testimony of Morse S. Duffield.)

A. Well, the work—I will have to tell you as to each claim; they were not all the same.

Q. Very good? A. Beginning on the Obey—

Q. Now, starting in—first, when was it done?

A. Well, the work was done between November 26 and December 9.

Q. Of what year? A. 1907.

Q. Who by?

A. By myself and Mr. Jeffs and Mr. Lemuel Colbach and Mr. Joe Moss.

Q. Now, starting in with some one claim and tell us where the work was done and what it consisted of?

A. The work on the Obey claim was done right close to the discovery, close to the discovery monument, within a very few feet of it, and consisted of an open cut which exposed the vein 10 feet below the lower rim of the outcrop of the vein, and comprised 240 cubic feet of excavation.

Q. Now, did it expose the vein or lode in place?

A. Yes, sir.

The work on the Obed was an open cut by the side of the mountain on the outcrop of the vein, exposing a vein at a depth of 10 feet below the lowest rim of the outcrop of the vein, [132] comprising 240 cubic feet of work, showing the vein in place.

The work on the Jimtown was done next to the discovery, and consisted of an open cut, 240 cubic feet taken out, and exposed a vein at a depth of 10 feet below the lowest outcrop of the vein.

Q. In place? A. In place.

The location work on the Fentress was partly an

(Testimony of Morse S. Duffield.)

open cut and partly an incline shaft exposing the—

Q. Tell us what part, and all about it?

A. Well, I don't remember the exact dimensions, but it exposed the vein 10 feet below the lowest rim of the outcrop of the vein and comprised 240 cubic feet of work, and exposed the vein in place.

Q. Well, where was it located?

A. At the discovery.

Q. Are they marked on the map so that you can see the proper places?

A. The discovery or the mark?

Q. No; the work?

A. Mr. Pitts said—he gave some figures or numbers, anyway, which would identify it, that is, he numbered the location posts as No. 1 and so forth, and the discoveries were marked “discovery.” In both of these places the work on the Jimtown lode was close to the discovery lying practically right at the discovery over under the post, or to one side of it.

Q. The vein was exposed to a depth of 10 feet in place, was it?      A. Yes, sir.

Q. Proceed?

A. The work on the Cumberland lode was done at discovery by an open cut—I made a mistake as to the Fentress. The Fentress was entirely an open cut, and I want to correct it.

Q. You can correct it right now?

A. The location work of [133] the Fentress was done at the discovery, and was an open cut exposing the vein 10 feet below the outcrop of the vein, comprising 240 cubic feet.

(Testimony of Morse S. Duffield.)

The location work of the Cumberland was done approximately at the discovery and was an open cut and partly an incline and exposed that vein at a depth of at least 10 feet below the lowest outcrop of the vein, and comprised at least 240 feet of excavation.

The location work of the Overton was done at the discovery and was an incline shaft partly, and partly an open cut, disclosing the vein at a depth of at least 10 feet below the lowest outcrop of the vein.

Q. It showed the vein rock in place?

A. Showed the vein in place, and comprised at least 240 cubic feet of excavation.

The location work of the Mt. Pleasant was done at the discovery and was an open cut and exposed the vein at a depth of 10 feet below the outcrop of the lowest portion of the vein, and comprised 240 cubic feet, and showed the vein in place.

The location work for the Arkansas was done at the discovery, and was an open cut, comprised 240 cubic feet of work, and exposed the vein at a depth of 10 feet below the lowest outcrop of the vein.

The location work for the Hickman, an open cut done at the discovery, and comprised 240 cubic feet of excavation, and exposed the vein at a depth of 10 feet below the lowest outcrop of the vein, and exposed the vein in place.

The discovery of the Columbia, the location work of the Columbia was done at the discovery of the Columbia, and was an [134] open cut, comprising 240 cubic feet of excavation, and exposed the vein at a 10 foot depth measured on the vein below the lowest

(Testimony of Morse S. Duffield.)

outcrop of the vein.

The location work on the Wayne was done at the discovery approximately, and comprised 240 cubic feet of work, and it exposed the vein at a depth of 10 feet below the lowest rim of the outcrop of the vein.

Q. In place?      A. In place.

Q. You have given them all now?      A. Yes.

Q. Was there any mining district there at the time you located those claims there?

A. It was an unorganized mining district at that time.

Q. I say, was there a mining district?

A. There was no mining district there at that time.

Q. What do you mean by unorganized—I asked you if there was an organized mining district?

A. No; there was not an organized mining district.

Q. There has been since, has there?

A. I don't know of any having been formed since.

Q. By the way, after you had originally set the posts in November, 1907, was anything further done about the posts after that, and during the year 1908, by you?      A. Yes, sir.

Q. What did you do?      A. We had placed—

Q. What did you do?

A. We placed new location notices in many of the monuments from which the location notices had disappeared.

Q. In other words, did you place new location notices in all places where—      A. No. [135]

Q. Where they were gone?

A. In all places where they were gone, we placed new ones.

(Testimony of Morse S. Duffield.)

Q. Were they copies of the ones that had been placed there originally?

A. They were copies of the recorded notices, and we also during 1908, had to renew many of the stakes.

Q. Who did that work?

A. I did part of it and Mr. Colbath, Mr. Moss, the persons doing our assessment work helped, and we had to renew a good many stakes.

Q. Did you supervise the renewal of the stakes?

A. Only partly.

Q. What do you know as to whether they were all renewed that were down in 1908?

A. Well, I know—I don't know whether they were all renewed; I have to take the word of some of the men that we employed for part of it.

Q. And then, we will have to go into detail if there is any question about it. What ones? Do you know?

A. Well, I do know that we renewed the southwest and southeast of the Overton.

Q. Well, that was the Overton?

A. The Overton.

Q. Well, give the rest, and cut it short, if you can?

A. Well, you can't cut it short; it is so long, and there are so many of them, but I renewed post No. 1 of the Overton, which the creek had undermined, and they had to set it up on the bank of the creek, and we renewed post No. 4 of the Cumberland, and post No. 1 of the Fentress, as marked on Exhibit 1. We renewed 3 and 4 as marked on Exhibit 1, of the Fentress lode; we renewed the discoveries of the



(Testimony of Morse S. Duffield.)

Obed and the Jimtown, that is post No. 1 of the Obed and post No. 4 of the Jimtown. Those were the ones that I personally superintended the renewal of.  
[136]

Q. Well, do you know of your own knowledge whether they were all renewed that were down in this group of lode claims?

A. Why, there were a few I did not go to, but I went to a good many of them.

Q. Well, on any of the claims do you know and can you give us the names of the claims?

A. Well, I don't know about all on the Wayne nor all on the Columbia, I knew about some on the Columbia.

Q. Is that all?

A. I don't know about all on the Arkansas. Those are the only ones I don't know all about it.

Q. For the Wayne, Columbia and Arkansas, of your knowledge, you know that the stakes were renewed in the year 1908, that had fallen down and disappeared? A. Yes, sir; I do.

Q. And were they set in the same place that they had been originally set by you?

A. Yes, sir; approximately.

Q. And as to the character of the stakes, how were they as compared with the former stakes?

A. In some cases we found the old stakes had been carried away or washed away, and reset them, and wherever a new stake was needed, we used a 4 by 4.

Q. How long? A. 4 feet and 8 inches.

Q. And marked how?

(Testimony of Morse S. Duffield.)

A. Properly marked, marked for the claim that it was intended for.

Q. Facing the claim?

A. Always facing the claim.

Q. Now, the Columbia you know in particular about, you say? A. Yes.

Q. To what extent and what corners?

A. The corners that are marked on Exhibit 1 as 1 and 8.

Q. Now, in 1909, was there anything in the way of renewing [137] the stakes that were gone?

A. Yes, sir.

Q. Who did the work? A. Mr. Hoff.

Q. You did not?

A. No, sir; I did not.

Q. Did you see it done afterwards?

O. I saw on one visit; I saw that some of the posts were missing and instructed Mr. Hoff to renew them.

Q. You were not there afterwards to know whether it had been done or not? A. No, sir; I was not.

Q. Now, who performed the annual labor for the claims for the year 1908?

A. Mr. Wilcox, Mr. George E. Wilcox, and I forget the name of the other Wilcox, and Mr. Samson.

Q. The two Wilcox's? A. Two Wilcox's.

Q. And Mr. Samson?

A. Samson and Colbath and Mr. Moss, and there was another man with the Wilcox's, but I have forgotten his name just now.

Q. Do you know where the work was done for 1908? A. Yes, sir.

(Testimony of Morse S. Duffield.)

Q. When ?

A. The annual work for 1908 for the Cumberland, Fentress, Jimtown, Obed and Obey, was done partly in tunnel 24, so marked on Exhibit 1—no; not 24—21, and the balance in tunnel No. 17. I am not exactly sure about 21, whether it was done in 1909 or 1908. [138]

Q. Was proof of annual labor made for 1908?

A. Yes, sir; I have the affidavits.

Q. Please produce them. A. For those claims?

Q. Produce all of your 1908 proofs, and I will have them marked as exhibits for identification. [139]

\* \* \* \* \*

Mr. DEY.—You may cross-examine.

Cross-examination.

(By Mr. BUDGE.)

Q. Mr. Duffield, when did you first become interested in phosphate or lime phosphate deposits?

A. About 1902.

Q. Where? A. Tennessee.

Q. And in what portion of Tennessee, Mr. Duffield? A. Mt. Pleasant.

Q. Mt. Pleasant. Is that the eastern portion or western portion? A. Well—

Q. Or the central?

A. That is about the central portion.

Q. About the central portion. What form of phosphate deposits were they? A. There?

Q. Yes. A. They were covered by alluvium.

Q. Well, was it—were they what are known as

(Testimony of Morse S. Duffield.)

pebble deposits?      A. No; it was rock.

Q. Rock phosphate?      A. Rock phosphate.

Q. And to what extent were you interested in those deposits?

A. Oh, I was not financially interested in them at all. I was interested in studying the subject of phosphates.

Q. Studying the subject of phosphates?

A. Yes, sir.

Q. How long, or during what period of time were you engaged in the study of that field?

A. Why, about 6 or 8 months, off and on. [165]

Q. Do you, or did you have anything to do with the entering of claims, or the locating of claims?

A. It was all patented land there; all deeded land, farming land.

Q. All deeded land. How were the claims acquired there?

A. They were not claims at all; you would just buy a farm and take the phosphate that was under it.

Q. Simply bought it by the acre, as you would buy any other land?      A. Yes, sir.

Q. Describe to us, Mr. Duffield, the nature of that deposit there in Tennessee.

A. Well, as I remember it, it was—the phosphate deposit itself was overlain by clay and alluvium, and the phosphate deposit itself was limestone that was disjointed and decomposed, evidently carbonate of lime leached out. It rested upon a solid rock in place as I remember it.

Q. How deep was the overlying deposit above the phosphate?

(Testimony of Morse S. Duffield.)

A. It varies all the way from a few feet up to twenty or thirty feet, according to the topography, as I remember it.

Q. How deep or how thick was the deposit of the phosphate? A. From 4 to 8 feet.

Q. And the underlying stone was what?

A. I don't remember now what it was.

Q. Did you study the formation there?

A. No, sir; I did not study the formation particularly then.

Q. You were not studying the formation of the fields? A. No, sir.

Q. What did you concern yourself with when you were making this investigation?

A. The business of mining the rock, or the phosphate business. [166]

Q. Simply the business of taking it out and marketing it? A. The marketing conditions.

Q. Did you have to do with the mining of this rock?

A. No.

Q. Not at all? A. No; not at all.

Q. And did you ever make any investigation of the ground as to the extent of this deposit? A. No.

Q. No investigation whatever? A. None.

Q. You have been upon the ground, have you?

A. Where? In Tennessee?

Q. Yes.

A. Yes, sir; visited a good many of the mines.

Q. And been in them? A. I have been in them.

Q. And how do they mine it, Mr. Duffield?

A. By stripping off the overburden of alluvium



(Testimony of Morse S. Duffield.)

and then mining the phosphate rock as it is exposed.

Q. In what way did they mine it?

A. It is decomposed and disjointed and they mine it with a pick and shovel.

Q. A pick and shovel?

A. Sometimes they blast to facilitate matters.

Q. And it is different in some places from what it is in others as to being hard or solid?

A. Why, I understand there are parts of Tennessee where it is hard.

Q. Well, in this particular field where you were interested, in the study of this subject?

A. Well, the differences were slight; it was mostly decomposed and disjointed limestone.

Q. Hard enough in some places, however, for blasting?

A. Hard enough so that blasting would be economical.

Q. And would have been the cheaper way to mine it? A. Yes, sir. [167]

Q. In what position was this bed of phosphate? How did it occur?

A. Well, slight dip from a horizontal.

Q. Do you know what the dip was?

Mr. DEY.—I would like to interpose an objection to this as not proper cross-examination and is immaterial and irrelevant to any issue in the case.

Q. Do you remember that?

A. I think the greatest dip that I saw there was about 15 degrees.

Mr. DEY.—I understand that this objection may

(Testimony of Morse S. Duffield.)

extend to all of this class of testimony without repeating it?

Mr. BUDGE.—Yes.

Q. Now, in this deposit in Tennessee, was it all one deposit of phosphate of lime, or was it cut up into different strata of different kinds of materials, different kinds of rock?

A. I don't remember now—that is, the details.

Q. Haven't any recollection about it? A. No.

Q. You don't know whether a clear bed of phosphate of lime, or not?

A. No, sir. It is so long ago, I would not say.

Q. You don't know *whether any* chert there?

A. I don't remember anything about that.

Q. Do you know anything concerning the analysis of that phosphate deposit there in Tennessee?

A. I don't remember anything accurately. I have read the Government report on it. That is all.

Q. But from your own investigations?

A. No, sir.

Q. You did not study that particularly?

A. No, sir.

Q. You did not study the mining of it, except to see it mined in a [168] few instances?

A. I studied the general method of mining there.

Q. How is that?

A. I looked into the general methods of mining.

Q. Just as you observed it?

A. As I observed it.

Q. Not to make any special study of it? A. No.

Q. And you say that you have no recollection at

(Testimony of Morse S. Duffield.)

all as to the underlying deposit below of phosphate?

A. No, sir; I don't remember that at all.

Q. Where was your next experience with phosphates? A. Montpelier Canyon.

Q. Is that on these claims, concerning which you have testified? A. Yes, sir.

Q. That is the next experience you had with this particular substance after leaving Tennessee?

A. Yes, sir.

Q. Now, where did you obtain your information as to this particular deposit near Montpelier where these claims are situated?

A. From an article in the Engineering and Mining Journal.

Q. By whom? A. Mr. C. C. Jones.

Q. And what led you to go to this locality to make this investigation?

A. I wanted to become interested in the ownership of phosphate land.

Q. The ownership of phosphate lands?

A. Yes, sir.

Q. Have you an acquaintance with Mr. Jones?

A. I met him once or twice in Salt Lake City here.

Q. Did you meet him prior to going up to Montpelier at the time of which you testified?

A. I met him in 1904, I think it was. [169]

Q. 1904. That was about three years prior to the locations? A. The first time I saw him.

Q. Did you get any information from him then as to these deposits? A. Why, nothing especially.

Q. Well, did you get any information?

(Testimony of Morse S. Duffield.)

A. Why, yes; he told me about his claims up there.

Q. He told you that he had located there, did he?

A. Yes, sir; he told me he had located claims there.

Q. Did he tell you what kind of claims they were whether lode or placer?

A. I don't think he went into the details at all.

Q. You don't remember whether or not he made any statements to you as to the nature of his claims?

A. No; he never told me.

Q. But he described the phosphate to you?

A. He described it in that article.

Q. Didn't he describe it to you when you talked to him? A. No; he did not.

Q. He said no more to you except to mention the fact he had some phosphate claims near Montpelier?

A. That is about all.

Q. Did you ever meet him after that?

A. I don't think I have ever met him since then.

Q. Not since then at all?

A. I am pretty sure I have not.

Q. Now, when you went up there, Mr. Duffield, who was with you? A. When I went up there when?

Q. To make these locations concerning which you have testified? A. Mr. Jeffs.

Q. Is he the only one?

A. He is the only one. [170]

Q And where did you say that you began the locating or the establishment of the discovery points and corners?

A. I began on the Obey lode claim, marked on exhibit 1.

(Testimony of Morse S. Duffield.)

Q. That is your northernmost claim?

A. Yes, sir.

Q. Now, when you were up there in that country, did you discover any posts of other claims?

A. I found old lode location posts.

Q. Old lode location posts? A. Yes, sir.

Q. Did you have any knowledge as to whose claims they were? A. Yes, sir.

Q. And what knowledge did you have?

A. All the knowledge I could get from the county records at Paris.

Q. And whose claims were they?

A. Those were C. C. Jones' claims. I think there were some claims here owned by Glenn and somebody.

Q. Glenn and Brennan?

A. Brennan and some of them—but I forget that just now.

Q. You mean the claim, Mr. Duffield, that was taken up, the claim or claims taken up by Glenn and Brennan as coal claims?

A. No, sir; they were recorded as lode claims as I remember it originally in the record.

Q. Are you sure on that?

A. Yes, sir; pretty sure of that.

Q. Now, did you find—did you see any map at any time of those locations, these old lode locations, before you went up there to locate? A. Yes.

Q. And whose maps?

A. One I made from the records.

Q. One you made from the records?

A. Yes, sir. [171]



(Testimony of Morse S. Duffield.)

Q. Did you ever see any other map? A. No.

Q. You did not see any in Salt Lake? A. No.

Q. And that was the only map that you saw?

A. I went and spent quite a while at the records there and made my own maps of the whole—

Q. Now, when you made your own maps from that record that you got there at Paris, did you make your locations then in conformity with that map?

A. Practically.

Q. Practically? A. Yes, sir.

Q. And in establishing these corners to the various claims, as you have testified, you stated, I believe, that in a number of instances you found old posts. Is that correct? A. Yes, sir.

Q. And that you nailed your corner posts to those in some instances. Is that correct?

A. Some instances, and in order to make the discovery posts exactly join with the original discovery posts I would spike it in without setting in the ground.

Q. Didn't you spike some corners that way?

A. I don't remember any corners now; there might have been one or two.

Q. Haven't any recollection about that?

A. I think there were.

Q. How was that?

A. I think there were one or two on the Overton and Cumberland.

Q. Can you tell us which corner?

A. The corner marked on Exhibit 1 as "1 of the Cumberland" and "1 of the Overton lode."

(Testimony of Morse S. Duffield.)

Q. That is 1 of both of them? A. Yes, sir.

Q. Of the Overton and the Cumberland?

A. A common corner.

Q. A common corner. Any others?

A. There is an old [172] post upon that and a new post set right alongside to it.

Q. Nailed to it?

A. I don't remember the nailing exactly.

Q. Any other one?

A. This one, number 2, 2 of the Cumberland and 4 of the Overton.

Q. Any others?

A. No; I don't remember any others.

Q. It was in 1907, three years and a half or a little more than three years and a half ago when you made these locations? A. Yes, sir.

Q. Can you remember the particular kind of posts that you placed at each one of the discovery points and at these corners?

A. I have a pretty good memory of them because I was very careful at the time.

Q. Did you take any note? A. No.

Q. Do you remember the particular kind of posts that were placed at each particular corner on these various claims?

A. I can remember it pretty accurately, I think. I can explain to you how I am enabled to remember it.

Q. All right, I would like that.

A. There is a patch of pine timber up in there at which we cut the posts—

Q. Up in where?

(Testimony of Morse S. Duffield.)

A. Immediately north of the bed, right on the north end of the Obey lode and just below the discovery of the Obey and Obed, there is a bunch of cottonwoods from which we cut posts, and just above the Hickman, a patch of cottonwoods where we could get posts, just up the mountain east of the Hickman where there is a grove of cottonwoods and where we cut posts, and up at the head of Tennessee gulch, which would be east of the Arkansas and Hickman, there is quite a patch of [173] pine timber, where we cut a lot of posts.

Q. East or west? A. East.

Q. A patch of pine timber?

A. Yes, sir. Now, the rest of the posts were those we bought at the lumber yard. I remember them pretty well.

Q. So the fact that you saw patches of pine timber, does that enable you to state what *kind posts* that you placed at the southeast corner of the Arkansas lode, for example? A. Yes.

Q. Does it enable you to tell what kind, or to remember distinctly cutting that post—well, do you remember the southwest corner?

A. Yes, sir; I remember that.

Q. Particularly from the fact that there was a patch of pine below?

A. That I went in over there and cut a post to do it with.

Q. At that particular corner?

A. At those two corners.

(Testimony of Morse S. Duffield.)

Q. Do you remember that was not for the Hickman corner?

A. I also cut some for the Hickman there too.

Q. Right at that same time?

A. Well, I think I cut cottonwoods for some of the Hickman corners there.

Q. You cut cottonwoods for some of the Hickman corners?     A. Yes, sir.

Q. Now, does the fact that there was pine timber along the edge of these claims, or quaking-asps enable you to tell specifically which particular kind of posts were placed at each particular corner?

A. It assists my memory very greatly.

Q. And you always selected posts, did you, from about 5 inches in diameter at the top?

A. I selected posts that would be good measure, anywhere from 5 to 8 inches at the top and 5 to 10 inches. [174]

Q. At the butt. Is that correct?

A. Yes, sir; some were 10.

Q. That is correct, is it?     A. That is correct.

Q. You have in mind now for all of these eleven claims the particular kind of posts that you placed at each particular corner and at the discoveries?

A. No; I am not going that far.

Q. Didn't you testify so on direct examination as to the particular kind of posts you placed at each particular place?

A. Of the eleven claims, yes, sir; I was thinking of the Maury and the Tennessee. Yes; I have a pretty good memory there.

(Testimony of Morse S. Duffield.)

Q. Do you remember particularly and specifically each corner and the particular kind of a post that was placed there on all these eleven claims?

A. Pretty certainly.

Q. From locating them three years and a half ago?

A. Yes, sir; and going there constantly since.

Q. They have been changed since, some of them?

A. Yes, sir.

Q. And not the same kind that you placed there in the first place? A. Yes, sir.

Q. So that you would not know it from having seen it since?

A. I would know what ones were changed pretty well.

Q. Even if you went there and you could not find it? A. Yes, sir.

Q. Now, when did you put those posts there in 1907? How long was it before you went up there to examine the posts at the various corners, how long afterwards?

A. January 6, 1908, I started to do some assessment work, but abandoned that on [175] account of the snow and at that time we checked over some of our corners, which already at that early date had been destroyed.

Q. Well, after that, when did you make any other effort to examine those posts and corners and so on, during the year 1908?

A. Why, I went over the ground several times in 1908, but I don't remember as I paid especial attention to the posts.



(Testimony of Morse S. Duffield.)

Q. In other words, you did not make any changes, or re-establish any posts during 1908 that you remember of? A. Oh, yes, in 1908, I did.

Q. When? What time of year?

A. In November.

Q. You are sure that was in November?

A. Well, it is about the time we began the assessment work, and while we were doing the assessment work.

Q. To the best of your recollection it is in November?

A. It was in November; it may have been an earlier date, but I know that we did look over some in November. I won't say that was the only time of the year, though.

Q. Did you ever at any time before that?

A. Well, I don't remember; I made two or three trips there but I don't remember just what attention I paid to the posts earlier than that, but I know that in November I paid especial attention to them.

Q. You haven't any recollection now that you ever re-established any corners prior to November?

A. Well, as I tell you in January we established them.

Q. I mean after January? A. No.

Q. Between January and November?

A. I don't recollect of any now, at our first visit.

Q. When you were staking these claims out, did you see any other [176] posts of any placer claims there on that ground?

A. I saw one post on the Waterloo placer.

(Testimony of Morse S. Duffield.)

Q. Is that the only post?

A. I think I found—I think I found a post that would be a common post of the Inman, Winfield and Colecock placer, approximately at the north center corner of section 31. I think those were the only two placer posts I ever saw.

Q. Didn't you see any placer post at the northwest corner of the Waterloo?

A. Yes, sir; that is the one I saw, the one I mentioned.

Q. That is the one you mentioned? A. Yes, sir.

Q. Did you see any down at the northeast corner of the Waterloo?

A. There were a lot of old 2 by 4's in the snow lying there. That might have been posts.

Q. Lying there?

A. Yes, sir; but no marks on them.

Q. Did you see any at the northeast corner of the Winslow? A. No.

Q. Did not see any there?

A. I made an effort once to find one there but I never could.

Q. When did you make that effort?

A. I made that effort in—while we were surveying the claims, or staking out the claims.

Q. What made you make an investigation to find out whether a post was there?

A. I wanted to find that corner. There is a correction in that township line and I wanted to find that.

Q. Didn't you find any corner at the center of sec-

(Testimony of Morse S. Duffield.)

tion 31? A. No.

Q. Did you look for any?

A. No; I did not look for any there.

Q. But you saw this common corner of the Inman, Colcock and [177] Winfield, you say at the time?

A. I saw at the point marked on this exhibit as a common corner of that, I found a placer post marked "Colcock"; it was not marked Inman and it was not marked Winfield.

Q. You are sure of that?

A. I could not distinguish it. All I could distinguish on it was Colcock.

Q. You have a distinct recollection, however, that it did have on it "Colcock"?

A. Yes, sir. That is the way I recollect it.

Q. Do you know what was on the other post at the Waterloo?

A. The letters "loo" is all we could ever distinguish upon that, made with a blue pencil.

Q. Now, before you made any locations here on this ground did Mr. Colbath and some others of your men do any work along this deposit?

A. Before I made a location?

Q. Yes. A. No.

Q. Before you made any survey, before you made your location? A. No.

Q. Did they do any work before you filed your notices? A. Certainly.

Q. And do you remember about the time that you were making this survey of a conversation you had in Montpelier with Mr. Ferrier, W. F. Ferrier?

(Testimony of Morse S. Duffield.)

A. I remember a conversation with Mr. Ferrier.

Q. And who was present at the time?

A. Why, Mr. Taylor and Mr. Sullivan, but that was not at the time at which your question implies it was.

Q. At the time you made this survey, was it not?

A. No, sir; it was— [178]

Q. When was it?

A. It was in December, I think December 6th.

Q. December 6th, 1908? A. No; 1907.

Q. Was it not November 6?

A. No, sir; we hadn't located the claim then.

Q. I understand, but was it not before you located the claims you had this talk with him?

A. With Mr. Ferrier? I never heard of Mr. Ferrier before December 6th.

Q. How do you fix that date?

A. From my expense account.

Q. From your expense account? A. Yes, sir.

Q. What does that have to do with your expense account?

A. Well, I was able to locate it that way, because I paid off one of my men just three days after that.

Q. And does that fix in your mind when you had the talk with Mr. Ferrier?

A. Yes, sir; that is the time.

Q. Well, this talk was on December 6, was it?

A. Yes, sir.

Q. And what was that conversation?

A. It was an argument on the lode and placer.

Q. What did Mr. Ferrier tell you?

(Testimony of Morse S. Duffield.)

A. Mr. Ferrier said that he had written a report for the United States Geological Survey and had settled the question that they were placers.

Q. What else did he tell you?

A. That is all I remember of him telling me.

Q. Didn't he tell you that the San Francisco Chemical Company claimed this ground here, over which you were attempting to make locations?

A. I don't remember of his telling me that.

Q. You have no recollection of that?

A. No, sir. [179]

Q. Would you say that he did not tell you that?

A. I am pretty sure—yes; I will say he did not tell me that.

Q. Will you say he did not tell you in substance and effect that the company claimed this ground upon which you were attempting to make locations and forbade you to make any locations or do any work there?

A. He did not say anything about locations; no, sir.

Q. Or to go upon the property?

A. He never said anything like that.

Q. Never said anything like that at all?      A. No.

Q. Where was this conversation?

A. As I remember it I was in a buggy right in the middle of the road.

Q. Right in front of the office of the San Francisco Chemical Company, was it not?      A. Yes, sir.

Q. And didn't you tell him on that occasion that you were going to locate it as lodes, it had not been



(Testimony of Morse S. Duffield.)

settled and you proposed to locate anyhow, even if they did claim it?

A. I don't remember any such conversation as that.

Q. Would you say that you did not say that?

A. Yes, sir; I would say that I did not.

Q. Now, did you have any conversation with Mr. Sullivan about the 6th day of January, 1908, up in Montpelier Canyon? A. Yes.

Q. What was that conversation?

A. Mr. Sullivan asked us if we were going to contest his placer claims on the ground that they had not done—

Q. On the ground that the San Francisco Chemical Company had not done the annual work upon the placers?

A. We told [180] him no; we had had lode locations and would confine ours to rock in place.

Q. Is that all you said?

A. That is about all I remember. There was more said. That was the meaning of what was said.

Q. Didn't Mr. Sullivan tell you that the San Francisco Chemical Company claimed this ground upon which you had been making locations as lode claims and notified you that you were trespassing upon ground claimed by the San Francisco Chemical Company?

A. No; he never notified us about that at all.

Q. He didn't say that in substance or effect?

A. No.

Q. And didn't he tell you that you must desist

(Testimony of Morse S. Duffield.)

from further trespassing and from working and performing any work upon that ground?

A. No; he did not say anything like that. We kept right on there and we left our tents for months.

Q. He did not say that in either substance or effect? A. No, sir.

Q. Did not Mr. Sullivan tell you on that occasion that the matter of the lode placer had been threshed out in the Waterloo case and that you had no right there to attempt to make lode locations?

A. He said something about the placer and lode question being settled.

Q. Didn't he tell you what I have stated?

A. No, sir.

Q. In substance or in effect? A. No, sir.

Q. And didn't you say in reply that it was not a case for the Land Department to decide but a case for the courts to decide and you proposed to have the courts decide it? [181]

A. I talked that way on the question of lodes and placers, that it was a question for the courts.

Q. That is what I am asking you. Didn't you tell Sullivan that on this occasion? A. Yes, sir.

Q. And you told him on that occasion that you proposed to go ahead with your lode locations notwithstanding his objections?

A. He had no objection. He was tickled to death to think that we were not going to contest his placers with other placer locations on the ground, they had not done the annual work.

Q. He was glad? A. Yes; he was.

(Testimony of Morse S. Duffield.)

Q. He was glad to have you with him up there in that locality?

A. He thought our lodes were worthless.

Q. He was glad that you made them?

A. Glad we made them lodes in stead of placers.

Q. Didn't you on the occasion which I have referred, when you talked to Mr. Ferrier in the presence of Mr. Sullivan and Mr. Taylor down in the street, didn't you ask why your men had been forbidden to work on those claims and had been ordered off? A. No; I asked no such question.

Q. You asked no such question. You did not ask— A. My men had not been ordered off.

Q. Didn't you come down town and on that occasion ask if he was not the sheriff?

A. Yes; I asked if he was the sheriff.

Q. You were very much excited at that time?

A. I?

Q. Yes; you. A. No.

Q. Never get excited? A. No. [182]

Q. You were angry and proposed to find the sheriff and find out whether you could stay upon this ground? A. No.

Q. Don't have any recollection of that either?

A. I was not angry.

Q. Haven't any recollection of that? A. No, sir.

Q. What did you want the sheriff there for?

A. I wanted to know where he was.

Q. Just as a matter of general information?

A. General information, is all.

Q. Did you know at that time that your men had

(Testimony of Morse S. Duffield.)

been ordered off?

A. Mr. Colbath and another man, they had had a little conversation with somebody up on the Mt. Pleasant lode.

Q. You knew that, didn't you?

A. That is all I knew.

Q. That is what brought you down town, was it not?

A. No. I just went out to visit the camp that day and I was coming in anyhow.

Q. Coming in any how. Did they tell you he had ordered them off? A. Yes, sir.

Q. And who did they tell you had ordered them off?

A. They said Mr. Taylor had ordered them off.

Q. Ordered them off?

A. I think it was Taylor; it might have been Sullivan.

Q. One or the other?

A. One or the other. That was on the Mt. Pleasant.

Q. You knew at that time and from that time, that this ground was claimed by placer locations, didn't you? A. I knew that all along, all the time.

Q. You knew that before you ever went upon the ground at all, didn't you, Mr. Duffield?

A. Yes, sir. [183]

Q. You had always had the knowledge that all this land was covered by the placer locations of the San Francisco Chemical Company, that is, the placer locations which afterwards had been conveyed to

(Testimony of Morse S. Duffield.)

the company? A. Yes, sir.

Q. And after you made your map from the location notices, and in accordance with which you made your locations of those lode claims you understood then the manner in which your lode claims conflicted with the placer claims, didn't you?

A. I understood it thoroughly.

Q. Thoroughly? A. Yes, sir.

Q. And you understood at that time that the San Francisco Chemical Company was doing this work on the claims and had been doing assessment work, both from the records and proofs made of labor, and also from your observations of the work that had been done?

A. No, sir; I don't remember that I felt so sure that they had done their work on all their placers.

Q. On all the placers. Well, what placers hadn't they done work upon?

A. None of those north of the canyon.

Q. None of them north of the canyon. Were there any affidavits on file?

A. No affidavits on file for 1907.

Q. For 1907? A. Yes.

Q. There were none, you say? A. No.

Q. When? A. If I remember rightly—

Q. At what time?

A. That is when—the time we located them.

Q. You mean in November, 1907? A. Yes, sir.

Q. There were no affidavits on file for that year?

A. I don't remember, but that is my recollection. The records [184] will show.



(Testimony of Morse S. Duffield.)

Q. There was plenty of time to file them after that, wasn't there?

A. Yes, sir; if they had done it.

Q. You did not examine the records after that?

A. I am not sure that they did the work in 1906 either.

Q. You are not sure that they did not either, are you?

A. No. Your question would make me sure that they did.

Q. What?

A. Your question implies I am sure that they did.

Q. I understood you to say that you made an examination of the records over there concerning this property?

A. Yes, sir.

Q. And concerning this entire country, didn't you?

A. What do you mean by the entire country?

Q. Between your Obey lode and the Wayne lodes?

A. Yes, sir; I examined those records.

Q. Yes. From those records. And you made inquiry and investigation not only as to the manner of the location but the manner that the country had been located in which it had been located, and also as to the proofs of labor, didn't you?

A. I did not look up the proofs of labor especially.

Q. Oh, you didn't? You didn't look them up especially. And then you haven't any recollection as to whether the work was done in 1906 or not?

A. No; only hearsay. I did not look them up myself.

Q. When you say that this ground was unoccu-

(Testimony of Morse S. Duffield.)

pied, you wish to qualify that, don't you Mr. Duffield, by the statement that it was claimed as placer property at the time you made your locations?

A. I don't think the statement that it was claimed to be a [185] placer conflicts at all with the statement that it was unoccupied.

Q. In other words, you claim, of course, that the placer occupancy was no occupancy?

A. Was no occupancy.

Q. But assume that it was an occupancy, assume for the sake of the argument that it was an occupancy, then they were occupied.

A. If you can call a placer location there an occupancy, then they were occupied.

Q. And so far as they could be occupied by placer locations then, all those claims and all the property covered by your lode claims was occupied at the time you made those lode locations?

A. Well, not all of them.

Q. Not all of them. Well, what ones were not?

A. Some of them I did not consider valid locations.

Q. Well, what ones were not occupied?

A. The Winfield, the Winter and the Wonder and the Winslow were not valid locations.

Q. Well, that is your—you are just simply interpreting that, the validity of those locations according to your idea? A. No.

Q. There had been attempts to locate them, hadn't there?

A. There had been attempts to locate them, yes.

Q. And there was work done there?

(Testimony of Morse S. Duffield.)

A. There was work done by the claimants that located ahead of them.

Q. There had been work done by them, too, hadn't there, on these placer claims? A. No.

Q. You say that there was no work there?

A. No.

Q. Never had been done by the placer claimants up to 1907? [186]

A. The Winter, the Wonder and the Winfield and the Winslow.

Q. That is what I am asking you about. I say, do you know and do you testify that there was no work done upon those placer claims, on those four claims up to 1907?

A. Yes, sir; there was none done under those names on those claims.

Q. None done under those names at all?

A. Yes.

Q. You are positive of that, are you?

A. Yes, sir; the record is the best proof of that.

Q. I am asking you of your own knowledge. You say you had some information about it. I want to find out?

A. Well, I would refer you to the records in case I am in error.

Q. I am not asking you about the record. We will have the record at the proper time. I am asking you whether you know there was no work done on those four claims, and whether you will testify now of your own knowledge that there was no work done on those placer claims, those four claims?

(Testimony of Morse S. Duffield.)

A. No; I don't know really what the record shows.

Q. Now, you don't know whether they were properly located at that time because you did not examine the corners? Haven't you so testified you did not examine the corners?

A. As far as that would enable me to judge whether they were properly located or not, I don't know whether they were properly located.

Q. You don't know whether they had been or not. But you knew and did have information that the San Francisco Chemical Company claimed these claims which are shown on this map, at the time you made your locations? A. Yes, sir.

Q. And their occupancy at that time was the occupancy that a [187] placer location could give them? A. Yes, sir.

Q. And of all those claims?

A. Well, on some of them it was not such an occupancy as a valid placer location would give.

Q. That is your opinion about it?

A. I won't say that altogether.

Q. There was some occupancy and some evidences of work done, was there not? A. Yes, sir.

Q. And you had knowledge of this work that was done at the time you made these locations—saw it there?

A. I saw work there. I don't know what it had been done for.

Q. Well, there was open cuts, wasn't there and some tunnel work on those claims? A. Yes, sir.

Q. And there was plenty of evidence there indicat-

(Testimony of Morse S. Duffield.)

ing that someone was working this property?

A. It would not be evidence that someone was working it.

Q. They were digging holes in it, and pits?

A. There was some evidence that somebody had been.

Q. Of course, they were not there every day, but there was evidence there that some one had done work on all of these claims? A. On what claims?

Q. The placer claims?

A. Well, it might have been done for the old lodes, for all I know.

Q. I am not asking you what it was done for. That was on the property covered by the placers?

A. I don't know what it was done for.

Q. It was on the property covered by these placer claims? A. Yes, sir.

Q. On all of them? A. Yes, sir. [188]

Q. Now, you say that those old lode locations had been abandoned when you made your locations?

A. Yes, sir.

Q. How did you know that they were abandoned?

A. From the record.

Q. What did you get from the record that convinced you of that fact?

A. The work for 1905 and 1906 had not been done.

Q. Are you sure of that?

A. I was pretty sure of it.

Q. Are you sure of it now?

A. Yes, sir; that the records do not show any affidavits or proof of labor for those years.



(Testimony of Morse S. Duffield.)

Q. You are as positive of that as anything else you have testified to in regard to these claims?

A. No; I am positive about this according as I know them.

Q. I asked you whether you are positive about this. Do you know this?

A. I don't know only what the record shows.

Q. I am asking you what you know, what it was that established in your mind the fact that these old lode locations had been abandoned?

A. The records show no work had been done.

Q. And you know that to be a fact that the records do show that?

A. Well, as I remember the facts at the time, that is the way I found the records.

Q. That is your recollection of what the records show? A. Yes, sir.

Q. Now, the Hickman claim differs from what it was when you established it by drawing in the claim from the east—that is, drawing in your east side line, owing to a conflict with a patented placer. What placer was that? A. The Waterloo placer.

Q. That is a placer that is patented to the San Francisco Chemical [189] Company?

A. Yes, sir.

Q. On this same deposit? A. Yes, sir.

Q. You knew at the time you made these locations, didn't you, Mr. Duffield, that you were going right into or would likely go into a contest with the placer claims on this property? A. Yes, sir.

Q. You had that information before you made any

(Testimony of Morse S. Duffield.)

surveys or any locations or established any corners or discoveries?     A. Yes, sir.

Q. And you understood that after you had made your map concerning which you have testified, and you understood that the location of all of these claims, every single one of those claims which are your lode claims, would be in conflict with the claims with the placer to that mineral deposit of lime phosphate?     A. Yes, sir.

Q. Had you ever discussed the location of these lode claims with Mr. Jones?     A. No, sir.

Q. At no time?     A. Never.

Q. Or with anyone representing him?

A. No, sir.

Q. Has he any interest in these lode claims, or any of them?     A. No; absolutely none.

Q. Absolutely none. Has he ever had any interest in any of them?     A. Never had any.

Q. Did you acquire any information concerning the fact that this country here where you have these lode claims located was claimed by the placer people, that is, claimed by the San Francisco Chemical Company, from any other source than the record prior to going up to Bear Lake?

A. Why, I think Mr. Jones told of a litigation he had on the question [190] of a lode or placer.

Q. Did you have any information that Mr. Jones had at any time located these as placers?

A. Only such as the records show.

Q. And you knew that, did you?     A. Yes, sir.

Q. And you saw that at a time before you made

(Testimony of Morse S. Duffield.)

your locations? A. Yes, sir.

Q. And did you know or have any information that Jones had afterwards made the locations, the old locations upon this same property?

A. I had the information that the records show. I don't recollect as to that point just now.

Q. Don't you know that the lode locations showed a later date than the old placer locations?

A. I don't remember that just now.

Q. Did you have any information that Mr. Jones at one time was in litigation with the San Francisco Chemical Company over the Waterloo property?

A. Yes, sir.

Q. You knew about that? A. Yes, sir.

Q. And you knew, did you not, that Mr. Jones had been in the employ of the San Francisco Chemical Company prior to that litigation?

A. No; I did not know that.

Q. Well, you had information to that effect, didn't you?

A. As I understood he represented the Mountain Copper Company; he had been working for the Mountain Copper Company.

Q. That is your information that he represented the Mountain Copper Company?

A. That is the way I remember it. I don't think I ever heard of his representing the San Francisco Chemical Company. [191]

Q. Did you ever know that he was employed by the San Francisco Chemical Company?

A. No; I never knew that.

(Testimony of Morse S. Duffield.)

Q. Now, calling your attention, Mr. Duffield, to the discovery of the Wayne, what kind of a post or monument did you place there?

A. I think that was originally a cottonwood and I replaced it with a 4x4 later on.

Q. Give us the size and dimensions of the particular post which was there?

A. There was an old post there about 8 inches in diameter, evidently the original post, and right alongside of it we placed a 4x4.

Q. Was that all at the same time when you—

A. Well, during the ten days that we were staking.

Q. Well, did you put the second post there at a different time, or put them there about the same time as the other post?

A. I think it was just at the time when we were checking up.

Q. Have you now any recollection that that particular post at the discovery of the Wayne, the discovery point of the Wayne, was replaced prior to November of 1908?

A. No; I have not any recollection of that.

Q. You don't know?

A. No; I don't remember that.

Q. Calling your attention to the angle stake on the Columbia; I will ask you to describe the angle stake, all the angle stakes, the four angle stakes on this Columbia claim.

A. The four angle stakes on the Columbia as I remember them were cottonwoods.

Q. Well, give us the size of them all.

(Testimony of Morse S. Duffield.)

A. They were all from 4 inches in diameter as originally placed, were 5 feet long and every one of them had a little base of rocks, a little [192] mound of rocks under it.

Q. That is the description of all of them. They were all practically the same in that regard as to size and manner in which they were placed?

A. That is practically the description of them as originally placed.

Q. Now, then, were they changed in any way or replaced prior to November, 1908, when you say that you paid especial attention to the stakes?

A. I don't remember about them in 1908. The men that were doing our assessment work had instruction to replace them all where they needed it.

Q. You haven't any recollection as to what was done? A. I don't recollect that just now.

Q. What?

A. I don't recollect there. Now, I recall the angle post No. 2 of the Columbia was replaced by a 4x4; that is right at our workings.

Q. When was that replaced?

A. That was done while the assessment work was being done.

Q. That was after or during November?

A. It was during.

Q. I am speaking whether any changes had been made up to November that you know, or if you don't know.

A. I don't know; I don't remember about those.

Q. Now, then, as to the angle in the Hickman. I



(Testimony of Morse S. Duffield.)

call your attention to the south end center of the Hickman. What kind of a post did you have there?

A. I think that was a cottonwood.

Q. Have you a distinct recollection in regard to it?

A. No; I have not.

Q. Give us the size and so on, the manner in which it was placed?

A. Well, all the stakes that I used and cut were good sized. [193]

Q. That doesn't mean much?

A. And I placed such a one there.

Q. Give us the size of the stake, the center end stake.

A. I don't remember that exactly, but I am pretty sure it was at least 4 inches.

Q. At the top? A. At the top.

Q. How long? A. 5 feet as originally placed.

Q. Any mound around it?

A. I don't recollect that.

Q. Was there any change made in that post up to November, 1908, to your knowledge?

A. No; I don't remember of any.

Q. Calling your attention to the discovery post of the Hickman: describe that to us.

A. It was a 4x4 replacing a—I replaced that in 1908.

Q. That was in November?

A. I replaced the original pine stake there before—well, let us see, that is along about the time the assessment was done.

Q. I am asking you about November, just before

(Testimony of Morse S. Duffield.)

that, Mr. Duffield. Was that post replaced before November, 1908?

A. No; I am not sure. I think it was.

Q. You think it was? A. I think it was.

Q. What kind of a stake was put in its place and when?

A. I think a 4x4 was put in its place.

Q. When, and by whom?

A. I don't remember now just by whom.

Q. When?

A. I think that was in January, along early in January, 1908.

Q. 1908, in the early part of January, 1908?

A. Yes.

Q. After that was any change made up to November? [194] A. I don't know of any.

Q. Calling your attention to corner No. 3 of the Mt. Pleasant, what kind of a stake was there there?

A. I think that was a fence post, an old fence post I brought down from town with us, either that or a 4x4 and I don't remember distinctly about that now.

Q. Can you give us any idea as to the form, size and dimensions, and manner in which it was placed at that particular corner?

A. Well, as I don't remember the post distinctly I can't very well do that.

Q. All right. Calling your attention then to the northwest corner of the Mt. Pleasant, what kind of a post was there there and how was it placed?

A. The northwest? That was a 4x4, four feet eight inches long set in a ground with rocks around the base.

(Testimony of Morse S. Duffield.)

Q. You remember that particularly?

A. I remember that as originally located.

Q. Was there any change made in that up to November, 1908?      A. I don't know of any.

Q. And the north end center of the Overton, what kind of a post did you have there?

A. We had a 4x4.

Q. You remember that, do you?      A. Yes, sir.

Q. And how was it placed?

A. It was placed right alongside by the old unmarked post which we had temporarily used.

Q. Nailed to it?

A. I don't recollect that; it may have been.

Q. How long was it?

A. Four feet eight inches. [195]

Q. Set in the ground?

A. Yes, sir; right at the base of the other, right alongside of the old post.

Q. Did you dig any hole for this new post that you put in there, or merely set it up against another one?

A. Oh, we dug a hole about four or five inches I should say and piled a few rocks around it.

Q. And then nailed it to the other post?

A. I don't remember now.

Q. Have no recollection of that?      A. No.

Q. And how about the end center?

A. The other end center of the Overton?

Q. To the south?

A. Well, that was a monument further up right in the wagon road.

Q. Now, then, how high was that?

(Testimony of Morse S. Duffield.)

A. Well, that was a good height. The rocks were plentiful there.

Q. How large a base did you have?

A. That had a base there of about four feet.

Q. How high was your monument?

A. It was fully four feet.

Q. Did you measure it? A. Yes, sir.

Q. How? A. By eye.

Q. By your eye? A. Yes, sir.

Q. Can you measure by your eye?

A. I can tell pretty well.

Q. I am not asking you how well, but I am asking whether you can measure the exact number of feet simply with your eye, without any instrument and without a tape or other means?

A. I can get a good common sense measurement with my eye.

Q. That is the kind of measurements you made here?

A. That particular one, but I had a special reason for doing that. [196]

Q. Did you measure all of them at that time?

A. No, sir.

Q. You took a tape to the others?

A. No; not always.

Q. What did you take? You didn't trust your eye, did you? A. Sometimes.

Q. When? A. Whenever it was handy to do so.

Q. But you didn't make any measurements, you did not make it a rule to make measurements of any of those posts?

(Testimony of Morse S. Duffield.)

A. As a rule our posts are so large we didn't need to measure them.

Q. You didn't measure them?

A. There was no need to measure them; they were so obvious that we didn't need to measure them.

Q. You didn't measure them? A. No.

Q. And the monuments you erected at different places in placing posts, you did not measure them, did you? A. How do you mean by measuring?

Q. Take any measurements as to the height with a tape or other means of—

A. We did measure them with a tapè or other means.

Q. Any of the monuments? A. Some of them.

Q. You measured some that way? A. Yes, sir.

Q. Which ones?

A. Well, most of our discovery stakes as we set them we measured them.

Q. I am talking about the monuments, I mean stone monuments. A. Well, a stake is a monument.

Q. I say stone monuments, not the stakes.

A. Well, on [197] the stone monuments we used common sense in the measurement.

Q. Never measured any of them?

A. Oh, yes; measured them.

Q. Never measured anything?

A. You state "never measured anything"?

Q. I say measured any of them?

A. Yes, sir; such measurements as I have described.

Q. Did you receive a notice from Mr. Taylor, the



(Testimony of Morse S. Duffield.)

agent of the San Francisco Chemical Company, during the month of April 1910, here at Salt Lake?

A. I have forgotten it if I did.

Q. Did you receive a registered letter from him?

A. I don't remember of any.

Q. Don't remember any letter at all?

A. April, 1910?

Q. Yes, sir.      A. No; I don't remember it.

Mr. BUDGE.—I will ask you, Judge Dey, if you have made any endeavor to find the letter that was sent to Mr. Duffield by Mr. Taylor during the month of April, 1910, which was received here at Salt Lake as I remember it on the 16th day of April.

Mr. DEY.—Mr. Jack, will you do that?

WITNESS.—The 16th of April?

Mr. BUDGE.—Yes; I think about that date.

WITNESS.—Was it Jeffs or Duffield?

Mr. BUDGE.—It was signed for by Mr. Jeffs but sent to Mr. Duffield.

Mr. JACK.—I have some recollection of such a letter.

WITNESS.—I don't think I ever saw it. [198]

Mr. DEY.—I have no objection to your using a copy of it.

Mr. BUDGE.—I have a carbon copy of it here.

Mr. DEY.—All right; submit it to Mr. Jack.

(Letter submitted to Mr. Jack.) We will admit that this is a copy of the original that was received by Mr. Jeffs.

Q. Mr. Duffield will recollect it by seeing it, possibly.

(Testimony of Morse S. Duffield.)

A. No; that was evidently filed without my ever seeing it. I do not recollect it.

Mr. BUDGE.—Well, we will read this into the record as follows:

[**Exhibit: Letter, Dated April 13, 1910—Jos. J. Taylor to M. S. Duffield.**]

SAN FRANCISCO CHEMICAL COMPANY:  
Telephone 52.  
Post Office box 87.

Montpelier, Idaho, April 13, 1910.

Mr. Morse S. Duffield,  
Dooly Building,  
Salt Lake City.

Sir:

Mr. George Hoff to-day attempted to commence work on our claims here claiming that he was acting under your orders. He was notified that he was trespassing and *would held* responsible for such trespass. On behalf of the owners of these phosphate claims I wish to notify you that any such acts by him or anyone else claiming to act under orders will be considered a trespass and you and your agents *will held* responsible for all damage or trouble that may result from *shuch* trespass.

Yours,

JOSEPH J. TAYLOR. [199]

Mr. BUDGE.—You admit, Judge Dey, that this letter was received on or about April 16th, by Mr. Jeffs, one of the complainants?

Mr. DEY.—Yes; by Mr. Jeffs, one of the complainants.

(Testimony of Morse S. Duffield.)

Q. Do you recollect some controversy arising during the fall of 1908, at the time you were doing your assessment there on those claims? A. Yes, sir.

Q. You do remember. Just tell us what occurred there?

A. Why, as I remember it, my men, the Wilcox brothers, drove onto the Overton lode claim with a wagon and camping outfit and started to pitch camp, and I don't know who it was, but somebody pretending to represent the San Francisco Chemical Company ordered them off.

Q. Yes; and the Wilcox boys went off?

A. Yes; and reported to us, to Mr. Jeffs and myself, here in Salt Lake City, and we commenced suit then, I think.

Q. You got out an order of injunction, did you not?

A. I don't remember.

Q. Restraining these people from interfering with your doing assessment work?

A. I don't know just what the legal steps were.

Q. Don't you remember there was an order issued to that effect, or do you remember?

A. I think that is what it was.

Mr. JACK.—The injunction applied to all of the claims.

Q. Now, were you familiar with the arrangement that was entered into between the San Francisco Chemical Company and yourself, or your attorneys after this suit was instituted with reference to work to be thereafter done?

A. Why, as I remember [200] it, the case was

(Testimony of Morse S. Duffield.)

dismissed without prejudice to either placer or lode claims.

Q. Do you remember whether or not there was any understanding at that time that you would be permitted to go on this land and do assessment work for the year 1908 only?      A. No; I don't think so.

Q. You don't remember anything about that?

A. No.

Q. Did you consult with your counsel as to the arrangement that was made in this matter?

A. Yes, sir; I left the matter in their hands.

Mr. BUDGE.—Judge Dey, I desire to submit to the witness some letters and telegrams that I want to put in on cross-examination simply to explain the whole situation. Have you any objection to those?

Mr. DEY.—We object to them as wholly immaterial.

Mr. BUDGE.—I will read them in evidence as follows:

**[Exhibit: Letter, Dated November 19, 1908—Charles C. Dey to Goodfellow & Eells.]**

DEY and HOPPAUGH.

Counselors at Law.

Auerbach Block.

Salt Lake City, Utah, November 19, 1908.

Charles C. Dey.

Al. L. Hoppaugh.

George W. Parks.

Messrs. Goodfellow & Eells,

Counselors at Law,

430 California Street,

San Francisco, California.

Gentlemen:—

Pursuant to understanding with your Mr. Eells, I have, upon my return, submitted to clients and associate counsel, the suggestion that they direct a dismissal of the bill of complaint [201] filed in the U. S. Circuit Court for the District of Idaho, and of the restraining order issued thereon. This they are willing to do, with your assurance that they may proceed to do, or cause to be done, the annual assessment work upon the thirteen lode locations described in said bill of complaint, for the year 1908, and annually thereafter until the question of the validity and right of possession thereof, as against the placer locations, may be adjudicated in an adverse suit when either party makes application for U. S. Patent. It goes without saying that neither of the parties are in any manner to be prejudiced in asserting and maintaining their several and respective rights, nor do they waive any right of possession they are, or may be, lawfully entitled to, or any legal rights whatsoever by reason of such permission being given to said complainants as aforesaid. Also, it is to be understood that said complainants, in doing such annual work, shall not unnecessarily interfere with any of the workings of the placer claims, or remove from the premises any phosphorite, or any other valuable minerals, or impede in any manner, the performance of the annual labor upon the unpatented placer mining locations.

Upon receipt of this, if you will wire (at my expense) your approval, with such appropriate modifications as you desire, and permit the assessment work to commence on Tuesday next, November 24th,



I will see to it that an order is at once entered dismissing the bill of complaint, etc.

Yours truly,

CHARLES C. DEY.

CCD/CC [202]

[**Exhibit: Letter, Dated November 23, 1908,  
Goodfellow & Eells to Charles C. Dey.]**

(Copy.)

Charles C. Dey, Esq.,

Nov. 23rd, 1908.

Auerbach Block,

Salt Lake City, Utah.

Referring to your letter of 19th inst., we represent persons claiming both placer and lode locations prior to yours on lands mentioned, besides Waterloo patent. Nevertheless, to avoid present litigation and perhaps violence, we agree that plaintiffs in Duffield vs. Goodfellow, may peaceably perform assessment work on lode claims described in that complaint for this year only, without otherwise disturbing our clients possession or prejudice to any claims for lode or placer asserted by your clients or ours; conditions otherwise as stated in your letter. If you will dismiss actions on these terms, wire us and we will instruct Idaho agent accordingly.

GOODFELLOW & EELLS.

[**Exhibit: Telegram, Dated November 24, 1908,  
Charles C. Dey to Goodfellow & Eells.]**

THE WESTERN UNION TELEGRAPH COMPANY

Received at S. E. Corner Pine and Montgomery Sts.,  
San Francisco, Calif.

5 S. X. R R H G 21 paid x 209.

Salt Lake, Ut., Nov. 24-08.

Goodfellow and Eells, Attorneys,

430 Calif. Street, San Francisco.

Immediate answer required.

We dismiss action upon conditions stated in your telegram covering this year's work leaving future work for adjustment when occasion arises. [203]

CHARLES C. DEY.

9:33 A. M.

[**Exhibit: Letter, Dated November 24, 1908, Charles C. Dey to Goodfellow & Eells.**]

DEY and HOPPAUGH,

Counselors at Law.

*Areubach Block.*

Salt Lake City, Utah, Nov. 24, 1908.

Charles C. Dey.

A. L. Hoppaugh.

George W. Parks.

Messrs. Goodfellow and Eells,

Counselors at Law,

430 California Street,

San Francisco, California.

Gentlemen:—

I now confirm respectively telegram of November 23rd, reading:

“Referring to your letter of 19th inst., we represent persons claiming both placer and lode locations prior to yours on lands mentioned, besides Waterloo patent. Nevertheless, to avert present litigation and perhaps violence, we agree that plaintiffs in Duffield versus Goodfellow, may peaceably perform assessment work on lode claims described in that complaint for this year only, without otherwise disturbing our

clients possession or prejudice to any claims for lode or placer asserted by your clients or ours conditions otherwise as stated in your letter if you will dismiss action on these terms wire us and we will instruct Idaho agent accordingly.”

And my reply of this date, reading:

“We dismiss action upon conditions stated in your telegram covering this year’s work, leaving future work for adjustment [204] when occasion requires.”

The statement in your telegram referring to your “lode” location is something I have not been advised as to.

I sincerely trust this matter will continue to be amicably arranged until the question involved can be finally determined, and I have no doubt if you remain in charge of the same that such will be the outcome.

I have instructed Mr. Gough to immediately enter dismissal of bill of complaint.

Yours truly,

CHARLES C. DEY.

[Exhibit: Letter, Dated November 28, 1908—Dey & Hoppaugh to Goodfellow & Eells.]

DEY and HOPPAUGH.

Counselors at Law.

Auerbach Block.

Salt Lake City, Utah, November 28, 1908.

Charles C. Dey.

A. L. Hoppaugh.

George W. Parks.

Messrs. Goodfellow and Eells,

430 California Street,

San Francisco, California.

(Testimony of Morse S. Duffield.)

Gentlemen:—

Enclosed please find copy of praecipe sent to the Clerk of the U. S. Circuit Court at Boise, Idaho.

Yours truly,

CCD/CC

DEY and HOPPAUGH.

Q. Do you know what work was done by your employees at the time they went there in 1908, after the arrangement had been made [205] between the San Francisco Chemical Company and yourself and after that suit had been dismissed?

A. The work for 1909 was done immediately following the work for 1908.

Q. You stayed there and did work for both years?

A. Yes; without objection.

Q. Well, were you there?

A. I made several visits while they were doing the work.

Q. Do you know whether any objection was made or not except when you were there?

A. I never heard of any from my men.

Q. You don't know of your own knowledge except when you were there?

A. Only when I was there, but my men would have reported it when I was not there.

Q. You knew at the time you made these lode locations and at a time you understood that there were placer locations upon this same property? You knew from the notices of location of the placer claims, as well as from the work that had been done upon those claims that the property was being claimed by the placer locators for this particular deposit of lime phosphate? A. Yes, sir.

(Testimony of Morse S. Duffield.)

Q. Now, calling your attention to that deposit, Mr. Duffield, you say that the phosphate is between limestone, two layers of limestone, one above and one below?     A. Yes.

Q. Now, just describe to us this phosphate deposit, the phosphate, not the other surrounding rocks, but just the phosphate.

A. The phosphate measures consists of about sixty to eighty feet of strata of high grade phosphate vein varying or alternating with smaller strata of shale and smaller strata of limestone. [206]

Q. And smaller strata of chert?

A. Occasionally.

Q. Yes; and it alternates throughout the entire series, does it? That is, it is a series of lime phosphate?     A. It is a zone of phosphate.

Q. A series. Now, what is chert, Mr. Duffield?

A. Chert is a silicious lime, silicious limestone.

Q. Silicious limestone. And does that occur many times in this series, chert?     A. In the series?

Q. Yes.

A. I don't remember seeing much chert in the series.

Q. Very little?     A. No.

Q. Well, there is some you remember, do you?

A. No—well, I don't know; occasionally a nodule maybe.

Q. Didn't you say in your direct examination that it was overlaid by chert?

A. Well, the hanging-wall north of Montpelier Canyon is chert, I think, a mass of chert limestone that lies next to it.



(Testimony of Morse S. Duffield.)

Q. Is that what you call chert?

A. I never examined it carefully. I always considered it chert.

Q. The hanging-wall of what did you call it?

A. Of the phosphate series.

Q. You say that was on the east side of the canyon?

A. The north side of the canyon.

Q. And that what you call the hanging-wall is what you call chert, is it?

A. Well, I don't know that it comes right down exactly to the phosphate series so as to make an actual hanging-wall, but in the general description, I should call that chert the hanging-wall. [207]

Q. Now, I think you stated in this series there was there alternating deposits of phosphate in between alternating deposits of limestone and so on?

A. And shale.

Q. And shale? A. Yes, sir.

Q. That is true? A. Yes, sir.

Q. And they are of varying thickness?

A. Yes, sir.

Q. That is, limestone might separate two deposits of phosphate and shale might separate two more?

A. Yes, sir.

Q. That is correct. Do any of these what you have called veins of phosphate, connect with another, or are they simply distinguished from one another?

A. I don't think enough work has been done in the whole field to tell whether they do or not.

Q. Well, from your observation what is the condition? So as to explain myself, do you know whether any of this, what you have called veins of

(Testimony of Morse S. Duffield.)

phosphate rock— A. Yes.

Q. Broke through the shale or limestone in between the two veins and connect with one another, or do they lie parallel to each one of the series?

A. I don't think they break through the shale anywhere, but the shale disappears in places.

Q. But they run parallel where more than two or more than one vein of phosphate, as you call it?

A. There is not enough work done to tell whether that will hold true throughout the entire region.

Q. So far as you have observed?

A. I have seen a few things that leads me to think that there will be a lens formed in these phosphate veins.

Q. What do you mean by that?

A. They will be more or less oval shape, and they will pinch out and bulge out. [208]

Q. Have you seen any there widen and narrow out?

A. Why, I have seen—I don't recollect just where I have seen it now—yes; I think I have seen that right on the Cumberland lode.

Q. On the Cumberland?

A. If I remember right.

Q. Just describe the condition that you have seen on the Cumberland?

A. There is some strata there, small strata of phosphate rock that is separated from other strata by shale, and I thought I detected there instances of the shale petering out and the phosphate widening; as the shale would narrow the phosphate would widen out.

(Testimony of Morse S. Duffield.)

Q. In other words, when you come to the end of where the shale pinched out the phosphate was there as a bed, was it? A. Yes.

Q. Have you noticed that on the Cumberland?

A. I think there is an instance there.

Q. Is that the only instance that you know of?

A. There are other instances in the field.

Q. Where?

A. Down at Brazer Canyon, I think there is one or two places where there has been enough work done to give you that idea.

Q. Is it a question of idea or fact?

A. It is all a question of idea.

Q. Is it a fact that you have seen this condition *that have* described down in Brazer Canyon?

A. It is a fact in Brazer Canyon that the vein of phosphate exists and—

Q. I am not asking you that at all. That is not the question. A. That is what you said. [209]

Q. I am asking you whether you have seen any condition in Brazer Canyon where the shale in between the phosphate beds had ended and had been superseded by a solid deposit of phosphate?

A. I won't say that it actually ended there, but it varies in thickness, the shale.

Q. Varies in thickness, but other layers where the shale exists, it is between the two beds of phosphate, but the phosphate does not break the shale?

A. Well, there has not been enough work to tell whether it does it or not.

Q. Have you ever seen it?

A. Not where it actually broke through.

(Testimony of Morse S. Duffield.)

Q. You never see it on the Cumberland vein where it actually broke through, do you?

A. I don't remember it breaking through.

Q. What you assume is that the Cumberland is of a similar condition that you see down at Brazer Canyon? That is, that the shale was simply of varying thickness and the phosphate beds came closer together—the phosphate beds on either side of the shale came a little closer together than they did at other places. Is that what you mean?

A. I mean the particular fact that the shale and the phosphate vary in thickness shows that some day they may break through.

Q. That is only a conclusion. You haven't seen it.

A. That is only a conclusion, that it does not break through.

Q. You haven't seen any place where it does?

A. No; I have not.

Q. And you see in many instances where it does not, and in fact every instance that you know of it does not? Is that true?

A. In a great many instances, because there is not enough [210] work done.

Q. Wherever you have examined this series it has always been true that the phosphate vein as you call it, does not break through the wall in between it and the other phosphate vein?

A. So far as work is done.

Q. Now, you said on your direct examination that this phosphate lime was easily discernible along this locality where these claims are located?

(Testimony of Morse S. Duffield.)

A. Yes, sir.

Q. And that it was quite apparent that you simply go along there and see this outcrop of phosphate rock following along these claims?

A. Well, the outcrop does not stand right out all the way.

Q. Oh, no.

A. But enough so that you can trace it.

Q. So as to be traceable?

A. To be traceable.

Q. It is not any more traceable than the limestone that is with it? A. No.

Q. It occurs just like the limestone, does it not? That is underneath and over it?

A. Yes, sir; just about like it.

Q. The same shape? A. The what?

Q. The same shape. It has the same appearance there along the line except as to color?

A. It is the same shape so far as being in place with the other strata, the other masses of rock.

Q. And if you were searching for limestone you would just as readily discover that as you would discover the phosphate in your search for that?

A. Yes, sir.

Q. I now call your attention to the phosphate, how do you determine, [211] Mr. Duffield, that certain deposit is phosphate?

A. By taking a sample of it and sending it to the chemist.

Q. Is that the way you determined this?

A. No.



(Testimony of Morse S. Duffield.)

Q. How did you determine this?

A. Well, that is right; we did send it to the chemist.

Q. You did send it to the chemist? Now, how does this compare in appearance and in other characteristics to the Tennessee deposit, concerning which you spoke?

A. As far as it is lying in place in the solid mass of the mountain, it is utterly different from the Tennessee deposit.

Q. Well, I am asking you about the principal nature of the rock itself.

A. Well, the Tennessee rock is as I remember it oolitic in structure and the texture is similar to this.

Q. This is the oolitic, is it? A. Yes, sir.

Q. Now, you say the manner of occurrence is different you say from what is down in Tennessee?

A. Yes, sir.

Q. You stated, didn't you, you did not know what was under that bed down in Tennessee?

A. No; I don't know.

Q. You don't know? A. I don't know.

Q. And it is only different then so far as your opinion goes, as to what is over it?

A. And that is enough to make a mighty big difference.

Q. That is the only difference?

A. That is the only difference.

Q. It has a dip to it?

A. The same, except perhaps this is a greater dip.

Q. This is a much greater dip?

(Testimony of Morse S. Duffield.)

A. Yes, sir; a much greater dip. [212]

Q. A greater angle?

A. Yes, sir; a much greater dip to it. The other has a dip of 15 degrees in some places as I remember it.

Q. And in other respect the rock itself is practically the same thing, isn't it?

A. No; the Tennessee rock is disjointed and filled with clay and alluvium in the cracks and joints and broken up like.

Q. Well, there may be more impurities in it, that is to say, there may be more materials in it that are not phosphate rock, but the phosphate rock itself is practically of the same quality, isn't it?

A. Practically the same.

Q. And the same color? A. No.

Q. Except as it is stained by those other mixtures?

A. These phosphates here are dark and in Tennessee they were grey, as I remember it.

Q. That is your recollection of this particular deposit in Tennessee is that it was grey?

A. The rock there was a grey rock.

Q. It was not loose in the gravel down in Tennessee? A. No; but overlain by gravel.

Q. The rock itself was not the gravel?

A. No.

Q. It was a solid mass as this is a solid mass?

A. Well, it was not near so solid as this is.

Q. It was solid and required blasting to economically mine it, didn't it?

(Testimony of Morse S. Duffield.)

A. It was disjointed and broken up.

Q. It required blasting so as to economically mine it?

A. Yes, sir; although it was not absolutely necessary.

Q. And it is not absolutely necessary here, is it?

[213] A. Yes, sir.

Q. The only way you can do anything with it?

A. The only way you can do anything with it here.

Q. The only way that you can mine it, no other way except to blast?

A. I don't know how you could do it.

Q. You don't know of any other way? A. No.

Q. And that was the way that was done down there? A. The way what was done, the mining?

Q. Yes. A. As I remember it.

Q. Now, then, so far as the underlying rocks of the two deposits, the Tennessee deposit and this, they may be the same for all you know?

A. They may be.

Q. And the only difference as to the manner of occurrence of these deposits is that this has a greater dip and a different covering?

Mr. DEY.—I object to the question as not being cross-examination and as immaterial, irrelevant and incompetent to any issue in this case.

A. Practically that is the only difference.

Q. Now, you have had considerable experience, have you not, Mr. Duffield, as a practical miner?

A. Considerable, yes, yes.

Q. And you understand, do you not, that limestone

(Testimony of Morse S. Duffield.)

is locatable as a placer? A. Yes, sir.

Q. That if you intended to locate the limestones, if any of them were of a commercial value adjoining this phosphate or in this phosphate series, that they would be locatable as placers?

A. Yes, sir; if you wanted it for the limestone.

Q. That is what I say, if you wanted it for the limestone. Now, this phosphate is limestone. [214]

A. No.

Q. What is it? A. Phosphorite.

Q. It is limestone that is impregnated with phosphoric acid? A. No; it is mineral.

Q. A mineral? A. Yes, sir.

Q. Isn't the underlying rock mineral?

A. Yes; a different mineral.

Q. It has more mineralization than limestone, hasn't it?

A. How do you mean? I did not catch that.

Q. May be more mineralized than the phosphate itself? A. Possibly.

Q. The underlying rock?

A. I don't know in what sense you used the word mineralized there.

Q. Possesses a higher percentage of mineral matter? A. Not as mineral as—

Q. I am not asking you whether valuable or not, I am asking you about mineral.

A. Well, I would not say it is possessed of a higher percentage of mineral matter.

Q. Do you know whether it is or not?

A. No; I never tried it.

(Testimony of Morse S. Duffield.)

Q. You never tested it and you never made any examinations have you, or made any chemical tests to ascertain?     A. Myself?

Q. Yes.     A. No.

Q. Is there any lime in this phosphate rock?

A. A little.

Q. How much?     A. About 40 per cent.

Q. How much—

A. I don't know how much there would be. [215]

Q. Well, considerable, isn't there?

A. Well, there is 30 to 40 per cent.

Q. And the only difference between this and the underlying limestone is the fact that this is lime phosphate and the other is carbonate of lime, isn't it; both limestone?     A. No; they are not limestone.

Q. Not limestone?     A. No.

Q. You still insist that it is not a limestone?

A. No; it is not a limestone.

Q. Simply because it has phosphoric acid in it?

A. No; because it is phosphorite.

Q. Phosphorite?     A. Phosphate mineral.

Q. What is the composition of phosphorite? Do you know?     A. Phosphorus.

Q. Do you know what the composition is?

A. A little iron, a little alumina, a little calcium and phosphorus from the analyses I have seen.

Q. From analyses you have seen. Now, then, what is in the other limestone?

A. Nowhere near the same amount of phosphorus.

Q. I am not asking you about anywhere near, but tell the Court what is in it.



(Testimony of Morse S. Duffield.)

A. I don't know what is in it in these particular cases.

Q. No. Now, all this limestone that is in between these layers of phosphate has got phosphoric acid in it, hasn't it?

A. I don't know. I never tried any.

Q. You don't know anything about it? A. No.

Q. Now, Mr. Duffield, calling your attention again to this deposit: [216] you said that the phosphate deposit had a hanging and a footwall, a hanging-wall of chert and a footwall of limestone. Is that correct?

A. I believe that is the way I described it.

Q. Now, in mining, as a practical miner, when you discover a vein that is actually known as a vein or lode, it is not material how thick either the hanging or the footwall may be on each side of the mineralized area, is it?

A. Not if that delimits the mineral.

Q. That is what I say. In other words, if the mineral is between two certain walls, it is not material how thick they are, those walls? A. No.

Q. If the vein is there, it is a vein no matter how thick the walls are. Isn't that true? A. Yes, sir.

Q. Now, there are alternating beds or layers or strata of limestone between these phosphate beds, or phosphate vein deposits? Is that true? A. Yes.

Q. So that you have got any number of hanging and foot walls between the various deposits of phosphate throughout this series, haven't you, just as much as you have a hanging and foot wall on either side of the whole series?

(Testimony of Morse S. Duffield.)

A. If you choose to classify it that way, that may be so.

Q. Mr. Duffield, how many of these phosphate claims have you?     A. That I have an interest in?

Q. I mean you and Mr. Jeffs.

A. In these thirteen claims here, and thirty-three claims in Utah, thirty-three lode claims in Utah.

Q. Yes.

A. And twelve lode claims at Thomas's fork; [217] three lode claims at Paris, Idaho.

Q. Yes; any others?

A. I think those are all now.

Q. Those are all your lode claims?     A. Yes, sir.

Q. Well, what interests have you in placer claims?

A. I have an interest in four placer claims in Utah.

Q. Yes.

A. And three at Raymond, at Thomas's fork.

Q. In Idaho?

A. No; they are in Wyoming.

Q. Are your lode claims also in Wyoming, the Thomas fork claims?     A. Yes, sir; they are.

Q. Any others?     A. No; that is all.

Q. Now, where are those thirty-three Utah lode claims?     A. They are in the Crawford Mountain.

Q. And where are those twelve on the Thomas's fork?

A. In the Sublette range, north and south of Raymond canyon.

Q. Three at Paris?     A. Yes, sir.

Q. And three in Idaho?

A. In Bloomington Canyon.

(Testimony of Morse S. Duffield.)

Q. And the four placers in Utah?

A. They are in the Crawford Mountain.

Q. And in Thomas's fork over in the Sublette Mountains? A. In the Sublette.

Q. Those are all the claims, Mr. Duffield, in which you have any interest?

A. I am pretty sure I have got them all there now.

Q. Seventy claims in all?

A. Thirty-three and thirteen make forty-six and twelve more make fifty-eight.

Q. You gave fifteen in Idaho?

A. Thirteen in Idaho.

Q. Thirty-three in Utah, thirteen in Idaho, twelve in Thomas's fork and three in Paris?

A. Add them up? [218]

Q. Is that right? A. Yes, sir.

Q. And seven placers? A. Seven placers.

Q. Did you attempt to locate any claims in Georgetown?

A. I forgot those; three claims in Georgetown.

Q. When did you locate them?

A. I located them in the first part of this year, in January. Those I had forgotten. I think there are three, may be four—no; three.

Q. Lode or placer? A. Lode.

Q. Locate those in Georgetown as nearly as you can with reference to the town.

A. They are about five or six miles east of Georgetown, up Georgetown canyon.

Q. They are within the withdrawn area?

A. In the withdrawn area.

(Testimony of Morse S. Duffield.)

Q. Are you familiar with the extent of this deposit, this phosphate deposit, that is as to how far it extends on the dip? A. No.

Q. You don't know. There is evidence that it extends to a very great distance, however?

A. Well, it might be a fault would cut it off.

Q. How is that?

A. There might be faults that would cut it, shorten it.

Q. But if there are no faults it extended to a considerable distance as is indicated by the erosion of the creek and the different hills there, along the hills and depressions?

A. Yes, sir; there is evidence that it extends, but it may not be of the same value.

Q. But irrespective of the value it extends to great distances. To what distance? What is the greatest distance of which you [219] know of this phosphate bed extending on the dip?

A. Where do you speak of?

Q. Any place, in this locality here in question; any of this deposit covered by any of these claims.

A. I don't think these claims go to very great depth on account of the evidence of a fault just west of the map here.

Q. West of the claims, you say? A. Yes, sir.

Q. Do you have your evidence from the character of the dip, the evidence of the fault?

A. No; I am just judging that evidence from the hills lying west of the Wonder and Inman placers.

Q. What evidence is there of a fault there?

(Testimony of Morse S. Duffield.)

A. Why, just for structural reasons, I should judge there was a fault there.

Q. What are the reasons? Explain them in detail what reasons there are for leading you to believe that there is a fault there.

A. I never made an examination in detail. My reasons are simply from looking at the topography.

Q. And it is not an opinion that you would consider of very much weight then, even to yourself, in ascertaining whether there is a fault there?

A. I don't think any opinion is worth anything.

Q. You haven't made any examination, as you say?

A. No.

Q. Even as a mining man? A. No.

Q. To ascertain whether there is any fault. It is just a casual looking at the country there. Is that it?

A. Yes, sir.

Q. To what extent in—that is, how long a distance do your claims [220] extend, that is, your lode claims along this deposit?

A. About two and one-half miles.

Q. Two and one-half miles. Now, then, what is the extent of your other interest in miles, in the Crawford Mountains?

A. Well, they are—it would be on an average of about three and one-half claims to the mile down there.

Q. And thirteen of them?

A. Thirty-three of them.

Q. Thirty-three, I should say.

A. Three and one-half to the mile.



(Testimony of Morse S. Duffield.)

Q. And in Thomas's fork you have twelve more?

A. Yes, sir; that would be about three miles at Thomas's fork.

Q. And how many in the Crawford Mountains?

A. Well, that would be about ten.

Q. And in Paris about a mile?

A. Hardly a mile; about a mile.

Q. Three quarters of a mile?      A. Yes.

Q. And in Georgetown about three-quarters of a mile?      A. Yes, sir.

Q. That totals about seventeen miles altogether?

A. I should say it would be about that.

Q. Are those claims, both lode and placer, owned by—that is, are they claimed by you and Mr. Jeffs alone, or is there anyone else interested in them?

A. We own them; the title stands in our name.

Q. Anyone else interested in them?

A. Yes, sir.

Q. Besides yourselves?      A. Yes, sir.

Q. Who?      A. Two associates of mine.

Q. And do they live in this country?

A. Yes. [221]

Q. This section of the country in the west?

A. No.

Q. Do you mind giving us their names?

A. No.

Q. How are they?

A. Mr. Stinchfield of Detroit, Michigan.

Q. What is his first name?      A. Charles.

Q. Who else?      A. Mr. D. C. Whitney of Detroit.

Q. Any one else?

(Testimony of Morse S. Duffield.)

A. And Mr. Jeffs' brothers. I don't know exactly—

Q. Brothers, one or two?

A. Two of them, I think.

Q. They are all interested with you in these claims? A. Yes.

Redirect Examination.

(By Mr. DEY.)

Q. Do you know what ore is?

A. Why, I think I know what you mean by ore practically.

Q. Are you not experienced in these matters, is what I am getting at, one way or the other?

A. I never devoted any thought or study to technical definitions and fine drawn distinctions.

Q. Or posed as an expert?

A. No; I never posed as an expert.

Q. You know generally what ore is?

A. Yes, sir.

Q. Is this phosphate rock ore?

Mr. BUDGE.—We object to that as calling for a conclusion of the witness.

A. Yes, sir.

Q. Are the walls you have referred to of limestone ore? A. No; it is not ore.

Q. Well, then, the difference between the phosphate rock and the [222] wall material is that one is ore and the other is not ore. Is that true?

A. That is the difference.

Q. Now, along in December, 1907, you testified on cross-examination there was some interference with

(Testimony of Morse S. Duffield.)

your men doing work?      A. It was in 1907.

Q. About what day?      A. On December 6th.

Q. At that time, had the work, preliminary work of discovery cuts or workings and the marking of the boundaries of the claims been performed?

A. On all except the Mt. Pleasant, and it was in the act of being performed on the Overton.

Q. All except the Mt. Pleasant?

A. It was being done at the time on the Overton.

Q. On the Overton?      A. Yes, sir.

Q. With the exception of the Overton and the Mt. Pleasant it had all been done up to that time?

A. Yes, sir.

Q. Well, were you kept from going on and completing the work on the Overton and the Mt. Pleasant?      A. No, we were not.

Q. Did you go right along with it?

A. We went right along the next day.

Q. Any objection?      A. No objection.

Q. You stated that you are interested in some placers?      A. Yes, sir.

Q. Please tell the Court when and how you became interested in those placers?

A. Mr. Jeffs and I own certain lodes in the Crawford Mountains, and certain lodes in the Sublette Range, in Wyoming; these lodes were in conflict with certain placers—

Q. Claimed by whom?

A. Owned by the Union Phosphate [223] Company, and the Union Phosphate Company deeded us their placer claims in those two localities in exchange

(Testimony of Morse S. Duffield.)

for certain lode claims that we deeded them in other localities.

Q. In a laudable effort to avoid extravagant litigation?  
A. Yes, sir.

Q. How long ago was that?

A. That was very recently.

Q. Well, this month or last month?

A. April 27th, I think.

Q. What year?  
A. 1910.

Q. What date?

A. I don't remember the date—1911, I mean.

Mr. BUDGE.—What month?

Mr. DEY.—April, 1911.

WITNESS.—It was March 27th.

Q. Please get it approximately correct, Mr. Duffield.

A. Well, I can't do it without chasing it up; I think March, 1911.

Q. Now, in making locations, you and Mr. Jeffs, have you located placer claims?

A. Yes, sir; I have located placer claims.

Q. Of this phosphate rock?  
A. No; never.

Q. That is what I am talking about.

A. In my career I have—

Q. All your other locations that you have made have all been lode locations?  
A. Yes, sir.

Q. In performing the annual labor for 1909, you performed it when?

A. In the latter part of January and February, in 1909, and continued down until April, I think; and a little more work finishing up, was done in the fall

(Testimony of Morse S. Duffield.)

for final affidavits.

Q. And more was done in the fall?

A. Yes, sir. [224]

Q. In the fall of that year? A. Yes, sir.

Q. Was there any objection made on the part of the San Francisco Chemical Company, or any interference with you in doing the annual work for 1909?

A. No objections.

Q. Or 1910?

A. Only this objection now called to my attention.

Q. The letter that Mr. Jeffs received, that has been read? A. Yes, sir.

Q. Did you see that letter?

A. I have seen it to-day, which is the first time I ever saw it.

Q. Did you see it at the time it was received?

A. No; this is the first time I have seen it.

Q. Or your attention called to it by Mr. Jeffs?

A. No, sir.

Mr. BUDGE.—I object to that as immaterial.

A. Not that I remember.

Cross-examination.

(By Mr. BUDGE.)

Q. What course did you take in Harvard University?

A. I took a degree as Bachelor of Arts.

Q. Did you take a course in mining engineering?

A. Not a full course, but I attended courses in it while there.

Q. How long did you study mining engineering?



(Testimony of Morse S. Duffield.)

A. In my four years I always had a few courses in that.

Q. And ever since that time and after your four years of study in which you took courses in mining engineering, you have been engaged more or less in the mining business? A. Yes, sir.

Q. And yet, you say you have no technical understanding of terms? [225]

A. No; I did not say that. I have a common sense understanding.

Q. Didn't you say you did not rely upon technical definitions and that you did not understand technical definitions relating to mining?

A. I did not say that. I said I had never devoted much time to the study of technical definitions and distinctions.

Q. And you are not familiar with the technical distinctions?

A. More or less, but I am not an authority upon the subject.

Q. You understand technical distinctions, you think, as they are employed in practical mining?

A. I think I do.

Q. Now, how do you determine that phosphate is ore?

A. Because it is mineral that is commercially valuable.

Q. Is that the reason?

A. That is a sufficient reason for me.

Q. Is that the only reason?

A. That is the only reason I have ever gone into it.

(Testimony of Morse S. Duffield.)

Q. The only reason that you have gone into it is that it is mineral that is commercially valuable?

A. Yes, sir.

Q. And that, you say, is the whole and only reason upon which you base your statement that phosphate is ore?

A. I think that is plenty, a sufficient reason.

Q. I ask you if that is the one?

A. That is the only one I care to pass my opinion on.

Q. Now, it is not like any other substance that you call ore, is it, that you know of?

A. Why, yes.

Q. What? A. Any ore you want to name.

Q. It is? A. Yes.

Q. Is it like lead? A. Yes. [226]

Q. In what particular like lead?

A. It is valuable for the ingredients that it contains: phosphorus.

Q. Is that the only reason that it is like lead and should be classed as an ore, and as lead is classed as an ore? A. That is a sufficient reason.

Q. Is that the only reason?

A. Well, that is the only reason I will—

Q. You say it is the same kind of ore that lead is, or belongs to the same classification of ores that lead does?

A. You can classify things until there is no end of it.

Q. Is that it?

A. You can classify lead as a metal.

(Testimony of Morse S. Duffield.)

Q. This is not like any other ore that you know of in mining? A. Yes, sir.

Q. It is not a metallic ore?

A. No, but that does not prevent it being like other ore.

Q. It is not a metal? A. Not a metal.

Q. You don't know of any ore that is not a metal other than this, do you?

A. There may be other ores that come under—

Q. Do you know of any in your experience as a practical miner? Do you know of any other ore that is not a metal?

A. I would not call cinnabar a metal.

Q. You would not? A. No, sir.

Q. You would not call that a metal?

A. Any more than phosphorus can be called a metal.

Q. It is in the same classification as phosphorus, cinnabar? A. No.

Q. Well, how does it differ in classification then?

A. Well, it is not the same classification.

Q. You put it in the same class then as phosphorus? [227] A. Yes, sir.

Q. Where would you class native quicksilver?

A. That is not a metal.

Q. Is it not a metal? A. No.

Q. What about native silver?

A. That is a metal.

Q. And native quicksilver is not a metal?

A. No.

Q. That is your idea of what is not a metal?

(Testimony of Morse S. Duffield.)

A. That is my idea, now.

Q. Now, this is phosphate of lime, isn't it?

A. It is a phosphate of lime.

Q. That is what it is and it is not anything else but a phosphate of lime, is it?

A. That is what it is.

Q. Now, talking about these placers, you were interested in placers before March, 1911, were you not, in placers covering phosphate deposits?

A. Before March, 1911?

Q. Yes; before March.      A. I think not.

Q. Didn't you have an interest in a claim near Cokeville, placer claims on phosphate, buy an interest in with the Union phosphate people?

A. At Cokeville?

Q. Near Cokeville.      A. Near Cokeville?

Q. Yes.      A. Why, no; I did not.

Q. Or in the Crawford Mountains?

A. No; it was about the 27th of March.

Q. Of this year?      A. This year.

Q. Is that the first you ever had?

A. That is absolutely the first I ever had.

Q. Ever had any interest in a placer location upon phosphate?

A. That is absolutely the first time. [228]

Q. All right. Now, these placer locations you have lately acquired were some which were covered also by lode locations?

A. They were on conflict with lode locations.

Q. You still have two lodes on them?

A. Yes, sir.

(Testimony of Morse S. Duffield.)

Q. Abandon the placers? A. No.

Q. Intend to abandon them?

A. I don't know. I have plenty of time to make up my mind.

Q. But you haven't determined whether you are going to abandon them or not? A. No.

Q. And you don't regard yourself as having any right by reason of your placer location, do you?

A. Well, only such right as might accrue should Congress enact any legislation on that subject.

Q. You don't consider that you are in the occupancy of any of that territory within the boundaries of the placer claims?

A. I am not abandoning any rights that may go with the placer.

Q. I am asking you if you regard yourself as possessing any rights in or possession of them as placers?

A. I think I possess just such rights as a placer location gives me; no more and no less.

Q. That is the only reason you care to give about that? A. That is all.

Q. You say some work was done in the fall of 1909 on these claims?

A. Yes, sir; I think there was a few days' work done.

Q. Do you know about it?

A. I don't know positively. I can look it up.

Q. Were you there? A. No.

Q. And anything you have stated with reference to work having been [229] done there is hearsay,



(Testimony of Morse S. Duffield.)

isn't it? A. Except for 1908.

Q. I say for 1909. For 1909, anything you have said with reference to work having been done in the fall of 1909 is hearsay?

A. Yes, sir; reports from my foreman, if you call that hearsay.

Q. You don't know anything about the work having been done personally?

A. No, sir; simply from reports of my men.

Q. And you don't know that you received any reports that work was done at that time?

A. Yes, sir; I do.

Q. You are sure of that?

A. I am pretty sure I can verify that.

Q. In the fall of 1909? A. Yes, sir.

And thereupon the further taking of the testimony in this cause was by consent of said parties, by their respective solicitors and counsel, adjourned until tomorrow morning, Thursday, the 18th day of May, 1911, at the hour of 9:30 o'clock in the morning.  
[230]

Thursday, May 18, 1911, 9:30 A. M.

MORSE S. DUFFIELD et al.

vs.

SAN FRANCISCO CHEMICAL COMPANY.

At this day comes again said complainants by Messrs. Charles C. Dey and C. B. Jack, their solicitors and counsel, and the said defendant, by Mr. Jesse R. S. Budge, its solicitor and counsel also come; and thereupon the further taking of the depositions herein is resumed pursuant to adjournment.

[**Testimony of Morse S. Duffield, for Complainants  
(Recalled).**]

MORSE S. DUFFIELD, plaintiff, produced as a witness on behalf of complainants, heretofore duly sworn, being recalled, further testified:

Direct Examination.

(By Mr. DEY.)

Q. Mr. Duffield, do you know Mr. Sterling and Mr. Wilson?     A. Yes, sir.

Q. In company with you did they visit the grounds shown upon Exhibit 1?     A. They did.

Q. When?

A. Well, I will have to look that date up.

Q. Approximately when?

A. I think it was in October.

Q. October of?     A. 1910.

Q. 1910?

A. About the middle of the month, I think.

Q. Who showed them where the claims were?

A. I went over the claims with them, or showed them all the discoveries. [231]

Q. Of all of the claims in controversy shown on Exhibit 1?     A. Yes, sir.

Q. You showed them the discovery points, did you?

A. I took them up Gertch Hollow to the discovery of the Obey and then to the north end center of the Obey and the northeast corner of the Obey and from there we started severally along the outcrop, visiting all the discoveries.

Q. Were any of the workings pointed out by you to these gentlemen?     A. Yes, sir.

(Testimony of Morse S. Duffield.)

Q. All the workings?

A. All the workings that we could find.

Q. Did you acquaint them with the location of the placer locations?

A. No, sir. In a general way I gave them to understand that the placers overlaid our lodes.

Q. Who was with you at the time besides Mr. Sterling and Mr. Wilson?

A. Mr. Hoff was with us, Charles Hoff.

Mr. DEY.—That is all.

Cross-examination.

(By Mr. BUDGE.)

Q. Did you on that occasion visit simply the workings on the lode claims, that is your workings?

A. No; we went into every—went into all the workings that there were except one, except one working on the Obed.

Q. That is to say, you inspected, did you, all cuts, open cuts and all tunnels throughout the entire area covered by these lode and placer claims?

A. We inspected all the workings except that one on the Obed covered by these placer claims, and those lode claims except the Waterloo placer and the lodes on the Waterloo. [232]

Q. What was it you did not visit on the Obed?

A. A tunnel or cut.

Q. A tunnel?

A. A tunnel marked "9" on Exhibit 1.

Q. How long were you in making this inspection, Mr. Duffield?

(Testimony of Morse S. Duffield.)

A. We were there one entire day and half of the next day, until noon of the next day; a day and a half.

Mr. BUDGE.—That is all.

Redirect Examination.

(By Mr. DEY.)

Q. Do you know how stakes would become down or missing?

A. Well, there are a number of different causes after you put up stakes to cause them to be missing.

Q. On this ground? A. On this ground.

Q. What are they?

A. In some places the hillside is very steep and the snow slides a little and the earth slides a little. In some places the gulches wash them out or could wash them out and some of our stakes have evidently been deliberately destroyed and taken away.

Q. You know nothing about that, do you?

A. I have actual proof of one or two.

Mr. DEY.—That is all.

Mr. BUDGE.—That is all.

MORSE S. DUFFIELD. [233]

**[Testimony of Charles Hoff, for Complainants.]**

CHARLES HOFF, a witness produced by the complainants, being first duly sworn, testified as follows:

Direct Examination.

(By Mr. DEY.)

Q. What is your name? A. Charles Hoff.

Mr. DEY.—The deposition of this witness is taken by consent. He lives, I think, within a hun-

(Testimony of Charles Hoff.)

dred miles, but we will take it by consent.

Mr. BUDGE.—Oh, yes; it can be taken now by consent.

Q. What is your name? A. Charles Hoff.

Q. What is your business? A. Mining.

Q. How long have you been engaged in mining?

A. Well, off and on since about 1872.

Q. Do you know the complainants, Messrs. Duffield and Jeffs? A. I do.

Q. Been in their employ? A. Yes.

Q. For how long?

A. Since August, 1908, August 10th.

Q. 1908. How soon after you entered their employ did you visit the ground covered by these lode mining claims shown on Exhibit 1?

A. In December, 1908.

Q. Was that your first visit?

A. No, sir; not over that ground. That was my first visit while in their employ, but I had previously been all over the ground.

Q. Previously been over the ground?

A. Yes, sir.

Q. When prior? A. In 1905.

Q. Were you working there then?

A. Yes, sir; in the employ of Mr. Charles C. Jones.

Q. What was your work there principally at that time? A. Doing location work. [234]

Q. Making locations?

A. Doing location work.

Q. Doing location work for Mr. Jones?

A. Yes, sir.



(Testimony of Charles Hoff.)

Q. Do you know the claims that you were doing work on, whether lodes or placers?

A. Yes, sir; they were lodes.

Q. Lode claims on phosphate rock?

A. On phosphate rock.

Q. In December, 1908, what was the object of your going upon this property?

A. While in the employ of Duffield and Jeffs, Colbath and other men were up there I went up to the camp, and also went over the ground at the time Mr. Duffield and Mr. Sterling and Mr. Wilson, with them; I went over the ground when they measured up all the work.

Q. Was that in 1908?

A. That was in 1909, but I went over the ground ahead of the other men who had worked in 1908 while—

Q. After Mr. Sterling and Mr. Wilson?

A. How was that?

Q. After Mr. Sterling and Mr. Wilson?

A. That was in 1909, I believe.

Q. Was not that last fall, 1910?

A. Well, perhaps so that they went over it—that is right; I had been over the ground so much I got somewhat mixed up on it.

Q. Did you do the assessment work for any year?

A. In 1910, I did.

Q. For the year 1910?      A. For 1910.

Q. What was the character of the work?

A. Open cuts and tunnels on each and every claim.

Q. Do you know the value of the work?

(Testimony of Charles Hoff.)

A. Yes, sir.

Q. What was it?

A. Something about thirteen hundred dollars, thirteen hundred and some odd dollars on the claims, [235] on the thirteen claims.

Q. Do you know the value of the work on each claim? A. Yes, sir.

Q. How much?

A. Not less than a hundred dollars.

Q. Was it work that tended to develop the claim?

A. Yes.

Q. Now, in 1910, when Mr. Sterling and Wilson were there, what did you do?

A. I just simply went along with them and pointed out the work that belonged to—

A. Well, just tell us briefly what you pointed out to them?

A. I pointed out the work which belonged to Duffield and Jeffs and also the work that belonged to the San Francisco Chemical Company.

Q. Can you tell by the map what work you pointed out as belonging to Duffield and Jeffs?

A. Yes, sir.

Q. Start in at the north end, please, and I think they go by numbers, and just briefly describe them.

A. There is an open cut and tunnel No. 4—you want the amount of work I done?

Q. Do you know that, did you measure it?

A. I think so. The work done in 1910—I have it in a book somewheres if I can ever find it. No. 5 on the Obey, an open cut  $4 \times 6\frac{1}{2}$ , thirteen feet long,

(Testimony of Charles Hoff.)

with a ten foot face.

Tunnel 4x6 seven feet—

Q. Let me ask you, Mr. Hoff. Didn't you point out to Mr. Wilson and Sterling 1, 2 and 3 marked on here?

A. Yes, sir; on the east side of the canyon.

Q. I want all the work that you pointed out to Messrs. Wilson and [236] Sterling, a general description of it. I want you to separate them as you told them?

A. Beginning on the east side of the canyon on the Obey claim, I pointed out tunnels 1, 2 and 3 belonging to the San Francisco Chemical Company.

Q. (By Mr. BUDGE.) That is 1, 2 and 3 as marked on that claim there in red figures? A. Yes, sir.

Q. Have you got the dimensions of them?

A. Not of these, I have not. I did not take the dimensions only of this other work in 1910.

Q. All right.

A. And then down to No. 4, which also belongs to the San Francisco Chemical Company, and from there to No. 5, which belongs to Duffield & Jeffs, I will now give you the correct dimensions of that if possible: open cut 4x14, ten foot face; tunnel 4x6, seven feet long; and then there is marked a stripping here as shown upon the map which was done by the San Francisco Chemical Company and some work done at the point of discovery which was used to determine, as the stripping was all about the same; it was done at the time of the discovery work, but at each discovery at the discovery, there had been work

(Testimony of Charles Hoff.)

done, location work.

Q. Tell us when you get onto a new claim.

A. All right. Now, I go on the Obed. The next work was done at No. 6, which belongs to the San Francisco Chemical Company, and then there was a continuous stripping down to No. 7 on the Obed, work done in 1910 for Duffield & Jeffs.

Q. (By Mr. BUDGE.) Was that stripping at No. 7?

A. No. Open cut 4x10, six and one-half foot face; tunnel 3½x6, ten feet long; and then there is more stripping down to [237] No. 8 with a small open cut and tunnel.

Q. (By Mr. BUDGE.) Is No. 7 Duffield & Jeffs?

A. No; that is the San Francisco Chemical Company. No. 9 is also San Francisco Chemical Company. Now we go onto the Jimtown, Duffield & Jeffs, open cut 4x10, seven foot face; tunnel 4x6, twenty feet long, No. 10.

Q. (By Mr. BUDGE.) Is that Duffield and Jeffs?

A. Duffield and Jeffs. Next we go to the Fentress; but here is 11. I omitted No. 11. It is just a small open cut.

Q. (By Mr. BUDGE.) Whose is that?

A. San Francisco Chemical Company. We get down on the Fentress to No. 12, San Francisco Chemical Company; open cut and tunnel. No. 13, Duffield & Jeffs, open cut 4x11, seven foot face; tunnel 4x6, nineteen feet long. On the Fentress there is some stripping all the way, and small open cuts along the lode, along the vein.

(Testimony of Charles Hoff.)

Q. Belonging to whom?

A. This is San Francisco Chemical Company. Discovery of the Fentress is also in an open cut belonging to—all the rest, the discovery and the location work, belonging to Duffield & Jeffs.

Q. What is 14? A. 14 is an open cut.

Q. (By Mr. BUDGE.) Whose?

A. San Francisco Chemical Company. No. 15, open cut at discovery?

Q. Whose is that?

A. Duffield & Jeffs. 16— [238]

Q. Still on the Fentress?

A. On the Cumberland now, I beg your pardon for not telling you. An open cut 4x12, with nine foot face; and then incline 4x5, nine feet long.

Q. (By Mr. BUDGE.) You didn't tell us who that belonged to.

A. Duffield & Jeffs, No. 16. There is some striping along the vein there.

Q. Without interrupting tell who they belong to.

A. No. 17 is striping of the San Francisco Chemical Company—no; wait a minute—that is down on the tunnel. It is marked here “17” as tunnel and cross-cut, 17 and 18, tunnels and cross-cuts belonging to Duffield & Jeffs, a long tunnel; I haven't the exact dimensions of that. Passing down, or measuring along with Mr. Wilson and Mr. Sterling; No. 19 at the discovery, there is a small open cut that had been done at the time of the location by Duffield & Jeffs. Nos. 20 and 21, San Francisco Chemical Company. Nos. 22, 23, 25 and 26 were also by the San



(Testimony of Charles Hoff.)

Francisco Chemical Company. We are on the Overton lode now. 27 is also San Francisco Chemical Company and 28 San Francisco Chemical Company; 29, tunnels of Duffield & Jeffs. There is fifty feet of work done in the tunnel last year, in the old tunnel that there had been work done on before, some thirty-five or thirty-seven feet. They done fifty feet more work in that tunnel in 1910, belonging to Duffield & Jeffs. The tunnel is in the neighborhood of eighty-six or eighty-seven feet long altogether; an open cut 4x10— [239]

Q. Is this No. 30?

A. No. 30; six foot face; tunnel  $31\frac{1}{2}$ x6, twenty-two feet long.

Q. (By Mr. BUDGE.) Whose is that?

A. Duffield & Jeffs. Another tunnel of Duffield & Jeffs that Mr. Wilson and Sterling have the measurements of. I simply took measurements of what work was there last year. That is 32. I haven't got 31 yet. There is some discovery work done, small open cut and tunnel, No. 31, Duffield and Jeffs. No. 32 is also Duffield & Jeffs, which as I said before I have not the measurement of. 33 is a stripping and an incline shaft that has been done years ago, hunting for coal. I believe that finishes the Overton. Next is the Mt. Pleasant, 34, San Francisco Chemical Company 35, San Francisco Chemical Company. 36 San Francisco Chemical Company. No. 37, San Francisco Chemical Company. 38, Duffield & Jeffs. 37 is San Francisco Chemical Company; that is right—it is Duffield & Jeffs instead of San Francisco Chemical. No. 38, Mt. Pleasant, open cut 4x6.5, by 13

(Testimony of Charles Hoff.)

feet long; tunnel 3x6, fifty feet long. No. 39, small open cut by San Francisco Chemical Company. No. 40, Duffield & Jeffs, which I have not the measurement of, made in 1908 and 1909. The next is Arkansas lode, 43 on the Arkansas—we have to skip to 43. Tunnel No. 43, Duffield & Jeffs, which I did not measure but other parties have the measurement of, done in 1908 and 1909. No. 44, tunnel by San Francisco Chemical Company. [240] No. 45—I gave you 43, Duffield & Jeffs. 44, San Francisco Chemical Company. 45, San Francisco Chemical Company. 46, Duffield & Jeffs. There is work done on that this year, open cut  $3\frac{1}{2}$ x6 feet face, 8 feet long; tunnel  $3\frac{1}{2}$ x6, 12 feet long; and that concludes the Arkansas lode.

Q. The next is the Hickman lode?

A. Yes, sir; there is a discovery cut on the Hickman; that is not numbered is it? That is not numbered—you simply want the numbers, I suppose? No. 47, Duffield & Jeffs; open cut 3.5 by 23 feet long, 8 foot face; tunnel  $3\frac{1}{2}$  by  $5\frac{1}{2}$ , 8 feet. No. 48, discovery pit, Duffield & Jeffs—hold on a minute; that is a long tunnel there that I have not the measurement of, done in 1908 and 1909.

Q. (By Mr. BUDGE.) Is it or is it not a discovery pit?

A. No; that is a tunnel right by the side of the discovery No. 49 on the Maury—No/50—I will have to skip those. The next is on the Columbia lode, No. 51, Duffield & Jeffs, on the Columbia claim—tunnel. I have given you open cut, 6x5, seven foot face; tun-

(Testimony of Charles Hoff.)

nel 3½ by 6, twenty-two feet long; also tunnel No. 52, which I did not measure, but the other people measured it, belonging to Duffield & Jeffs. The next is the Wayne, 53, Duffield & Jeffs; open cut 3x7, eighteen and one-half feet long; tunnel 3x5½ and eighteen and one-half feet long. Nos. 54, 55 and 56, done by the San Francisco Chemical Company. I believe that concludes all the workings.

Q. Look again at No. 55 please, and see if you can identify that work? [241]

A. Didn't I give it, No. 55?

Q. 55, you said was done by the San Francisco Chemical Company. Is that the fact?

A. I guess not.

Q. I don't want any guessing about it, if you know say so and if you don't know, say so.

A. That is a tunnel that I run myself.

Q. What?

A. A tunnel that I run myself; I gave it to the San Francisco Chemical Company, but I made a mistake.

Q. Now, ascertain, and give us the real fact.

A. The last measurement I gave you should be for 55.

Q. Before you gave the measurement of what?

A. 53, was it?

Q. Just get it straight is all I want, Mr. Hoff.

A. No. 53 is right as I had it before.

Q. What is right now?

A. The last measurements on 53.

Q. I think you had better straighten it out now,

(Testimony of Charles Hoff.)

and if you have made any error correct it so that the notary can get what you say.

A. I have got it now: 55 was done in 1908 and 1909; that is Duffield & Jeffs work, as I remember it. I remember distinctly now the tunnel in the bottom of the hill.

Q. Any other mistakes that you have made?

A. How?

Q. Any other mistakes that you have made?

A. I don't think so.

Q. When you say the work was done by the San Francisco Chemical Company, what knowledge have you about that? A. Well, no personal knowledge.

Q. No personal knowledge? A. No, sir.

Q. What information did you have?

A. I knew that the [242] San Francisco people were working there off and on, being close by there and traveling back and forth.

Q. Well, did that include work that you did in 1905 for Jones?

A. Well, I done some work, location work on all of these claims in 1905.

Q. Did you classify that as San Francisco Chemical Company's work?

A. I did. All the work that I gave, that I gave, that I pointed out as San Francisco Chemical Company's work, that had been done by Jones and by them too.

Q. So that the fact is that all the work that you have pointed out that was done by Duffield and Jeffs, you have called work done by the San Francisco



(Testimony of Charles Hoff.)

Chemical Company? A. Yes, sir.

Q. And you have no personal knowledge, as I understand you, as to whether or not that company did the work except in part?

A. Just by knowing that they were working there and had men to work as anybody would know by observation.

Q. Well, I don't understand you. You say also it includes work done by Mr. Jones?

A. The work that I pointed out to them, yes.

Q. And the work done by Mr. Jones, you classified here as work done by the San Francisco Chemical Company?

A. Well, I suppose it all belonged to them, and therefore I gave them credit for it.

Q. Do you remember when Mr. Pitts and Mr. Brooks made the survey? A. I do, sir.

Q. Were you with them?

A. I was with them every day from the beginning to the finish.

Q. Who showed Mr. Pitts the ground?

A. I did.

Q. And the stakes? A. I did. [243]

Q. The discoveries? A. I did.

Q. In cases where the stakes could not be found, what did you do?

A. We replaced the stakes.

Q. No. Now, what did you do with reference to identifying the corner or place?

A. I had been over the ground so much I knew



(Testimony of Charles Hoff.)

where the corners were whether the stakes were there or not.

Q. That is to say, you had been over the ground previous to Mr. Pitts and Mr. Brooks being there?

A. Many times.

Q. And you became familiar with the corner stakes? A. I did, sir.

Q. And the angle stakes and the discovery stakes rather, all of the stakes, were they all standing when you went into the employ, or went upon the ground, after you entered the employ of Messrs. Duffield and Jeffs? A. Not all of them.

Q. How did you know then where the corners were when the stakes were not there?

A. Because I had previously been over the ground and also stakes or monuments of some of the claims were in position so that I knew exactly where the corners were.

Q. Previous to the time that you entered the employ of Duffield and Jeffs, but after they had made these lode locations? Is that what you mean?

A. I had been over the ground before and after.

Q. And afterwards?

A. I was very familiar with the ground before.

Q. When the stakes were standing?

A. Yes, sir.

Q. Placed by Duffield and Jeffs? A. Yes, sir.

Q. And those places that you pointed out to Mr. Pitts or Mr. Brooks or both of them as the corners, were they the corners and places [244] where the original stakes had been set?

(Testimony of Charles Hoff.)

A. Yes, sir; or very nearly so, so near that in one or two instances on the Jintown the stake was swept out of the gulch where the creek-bed, where it was liable to be destroyed and also at the corner between the Overton and the Cumberland, the northeast corner of the Overton, and the southwest corner was set down in the creek-bed, but the stakes or corner was re-established there.

Q. Originally were stakes set down in the creek-bed? A. Yes, sir; I have seen it there.

Q. Seen it there? A. Been to it, yes, sir.

Q. Is that where Mr. Pitts and Brooks established them? A. They established it right there.

Q. Did you observe the size and dimensions and length of the original stakes? A. I did.

Q. What is the size and length and dimensions?

A. And the kind?

Q. Yes.

A. Some quaking-asps, some were pine and some were 4x4's sawed timbers, and from natural observations I would judge them to be 41½ feet long, from that to 51½, some longer. The round timber was perhaps from 5 to 8 inches in circumference—or in diameter, rather.

Q. How much in diameter?

A. 5 to 8 inches.

Q. Were there any that were less than 4 feet above the ground?

A. I did not notice any that was, that I would judge to be less than four feet; I did not measure them, of course.

(Testimony of Charles Hoff.)

Q. Were they marked as original stakes?

A. Yes, sir.

Q. How marked?

A. Marked Duffield and Jeffs, northeast [245] or southwest corner, or whatever the corner it was indicating the claim, facing the interior of the claim.

Q. Marked on the interior side of the stake?

A. Yes.

Q. In towards the claim?      A. Yes, sir.

Q. Any of them hewed?      A. Some of them.

Q. Well, what ones were hewed?

A. At the northwest corner.

Q. Not where they were located, but what kind of stakes, and how hewed.

A. Hewed pine, red pine stakes hewed to conform to the size, hewed enough to make it practicable to describe them.

Q. Where the marks were on those round timbers, was it hewed?

A. It was hewed so that they could do the writing on them.

Q. Were the stakes re-established each year while you were connected with Duffield and Jeffs?

A. I re-established them in 1909 myself.

Q. And in 1910, the patent survey was made?

A. Yes, sir.

Cross-examination.

(By Mr. BUDGE.)

Q. Mr. Hoff, you have been over all the ground, practically all of it, included within the placer claims of the San Francisco Chemical Company and within

(Testimony of Charles Hoff.)

the boundaries of these lode claims a great many times, haven't you? A. I have.

Q. And particularly since 1905?

A. 1905 I was and part of 1906, but not again until 1908.

Q. And as you stated you observed that the employees of the San Francisco Chemical Company were working at various places on [246] this ground. That is correct, isn't it? A. Yes, sir.

Q. Now, calling your attention to these workings described on the Obey lode claim, and within the Colcock placer as 1, 2 and 3, marked in red figures, which you said was the workings of the San Francisco Chemical Company, were any of those workings which you made when in the employ of Mr. Jones?

A. No, sir.

Q. Calling your attention to No. 4 on the Obey lode and on the Colcock placer, was that work done by you or anyone else that you know of in the employ of Mr. Jones? A. No, sir.

Q. Now, calling your attention to the Obed lode claim, and to the work done at No. 6 on the Inman placer, and which you have stated was the San Francisco Chemical Company work, was that done by you for Mr. Jones, or on his behalf?

A. No; all the work I done for Jones was right up at the discovery.

Q. So No. 6 was not done by you for Mr. Jones?

A. No.

Q. How about No. 7, which is on the Inman placer claim and within the Obed lode claim?



(Testimony of Charles Hoff.)

A. Not done by me. I done no work only at the discovery.

Q. It was not done by Jones?

A. Not by Jones.

Q. I will ask you before proceeding further if you are personally familiar with all the work that was done under the supervision of Mr. Jones?

A. Not all of it.

Q. Well, for what period of time were you familiar with it?

A. From the time Mr. Jones made lode locations on this ground..

Q. Oh, from the time he made the lode locations?

A. Yes, sir.

Q. And that was at what time?

A. In 1905, I think. [247]

Q. In 1905? A. I would not be right sure.

Q. Was there work done prior to that?

A. There was.

Q. And is any of this work as to which you testified work which was done prior to 1905?

A. I think it was done in 1905.

Q. What I want to get at is this, is any of this work, which has been designated on this Exhibit 1 by these red figures as the work performed by the San Francisco Chemical Company, was any of this work done by or on behalf of Mr. Jones, prior to his location of his lode claims?

A. Yes; there was some work done there.

Q. I mean any of this that you pointed out?

A. I don't think so.



(Testimony of Charles Hoff.)

Q. According to your best information and knowledge then, none of this work which is designated by the red figures on any of these claims was done by Mr. Jones prior to the location of his lode claims. That is correct, isn't it?

A. It is possibly No. 16 on the Cumberland and some stripping on the Cumberland; in fact, I am satisfied it was done by Jones prior to the lode locations. Also on the Overton at what we call the old claims there was a lot of work done by Mr. Jones there prior to the lode locations.

Q. No. 16 the Hickman and strippings on the Hickman? A. Not the Hickman.

Q. Yes; strippings on No. 16? .

A. No; Cumberland.

Q. Excuse me; it is the Cumberland. And what else on the Overton? A. That is the old—

Q. Number what? A. No. 33.

Q. No. 33, Overton. Now, your best information is that some of this [248] work was done by Mr. Jones, or on his behalf prior to the time he made his lode locations? A. That is right.

Q. Now, was all of it done at No. 16 and 33 in this stripping? Was all of the work that now appears to have been done there done by Mr. Jones prior to the location of his lode claims?

A. Well, it seems to me—

Q. Don't you know? A. Well, I don't know.

Q. All right. Was there any other work which is designated upon this plat as work which you said was work of the San Francisco Chemical Company in

(Testimony of Charles Hoff.)

there other than 16 and 33, and this stripping done prior, done by Jones or on his behalf, prior to the location of his lode claims?

A. Except 16 and 33, not within the claims that are in conflict.

Q. Not within any of the claims that are embraced in this controversy?

A. No, sir; there was work done on the Tennessee, but that doesn't come in.

Q. But on all of these claims, these lode claims and the placer claims that are enumerated in the complaint and answer in this case, there was none of the work which you have described was work of the San Francisco Chemical Company,—that was done by Mr. Jones prior to the location of his lode claims, except what you have stated that number 16 and 33 and a little stripping? A. Yes, sir.

Q. Or some stripping? A. Yes, sir.

Q. Now, do you know whether or not—by the way, all work that Mr. Jones did do, so far as your knowledge extends, was in 1905?

A. Yes, sir: in 1905.

Q. So that if there is any work that is enumerated upon, that has [249] been described to you as the work of the San Francisco Chemical Company, which you claim might have been done by Mr. Jones, or was done by Mr. Jones, so far as is set out on this map, it is Nos. 16 and 33 and the stripping?

A. Exactly.

Q. All the other work described by these numbers and described by you in your testimony is work which

(Testimony of Charles Hoff.)

has been done since 1905 by the San Francisco Chemical Company?     A. To the best of my knowledge.

Q. Yes; and as you say you have been over the claims and observed them working in various places along this deposit?     A. Exactly.

Q. And you have never seen, have you, Mr. Hoff, any other persons working or digging open cuts or tunnels, or sinking shafts or doing any other sort of mining, digging or any other sort of mining operations on any of this ground, save the San Francisco Chemical Company other than Duffield and Jeffs?

A. None there besides what is shown.

Q. Now, then, calling your attention again to numbers 1, 2 and 3, as designated on the Obey lode claim and within the Colcock placer, I will ask you whether you ever made a personal inspection of those workings?

A. Nothing more than just simply to go into the tunnel.

Q. And have you been into all of these tunnels and observed all of these open cuts?     A. I have.

Q. You did not, as I understand it, take any measurements at any time?     A. No, sir.

Q. Can you give me the approximate length of those tunnels, numbers 1 and 2 on the Colcock placer and within the Obey lode? [250]

A. I would hate to undertake to do that and come anywheres near right.

Q. Well, have you from going into these tunnels, are you able to give your judgment as to the length of them as you would from observing any other tunnel?

(Testimony of Charles Hoff.)

A. Oh, I don't know as I could do it on the map, I could on the ground tell by observation what the tunnels are.

Q. Now, from your own recollection as to these tunnels, what is your best judgment as to their length and size?

A. I would hate to undertake to tell you.

Q. Well, I am asking you simply as a practical miner and you say you have been engaged in mining off and on, since 1872, and you surely have some judgment as to the size and length of the tunnels after you have been into and over the ground and around about there and into these tunnels on several occasions. Now, what is your judgment as to the length and dimensions or size of those tunnels, 1 and 2?

A. A man that is traveling in open cuts and tunnels on some seventy odd claims all the time, can't hardly remember exactly what this was.

Q. Have you in mind now the particular location and condition surrounding these tunnels, 1 and 2, on the Obey lode?

A. Yes, sir; one of them, No. 2 is timbered for some distance at the mouth of the tunnel.

Q. So that you have in mind now a distinct recollection of this particular tunnel?      A. Slightly.

Q. Now, have you of No. 1?

A. I would not be positive on that whether it is timbered or not. I think it is though at [251] the mouth, for some distance.

Q. You have a distinct idea as to those two tunnels?

A. Yes, sir.



(Testimony of Charles Hoff.)

Q. Now, how long were they?

A. I should judge sixty or seventy feet, somewhere thereabouts.

Q. What is the size of them?

A. About 4x6 at the mouth where they are timbered.

Q. What is the average size?      A. 4x6.

Q. What about No. 4, which I understand you to say is also San Francisco Chemical work?

A. That is timbered at the mouth, about 40 feet, 40 to 45 feet.

Q. What is the length?      A. That is the length.

Q. 4x6?      A. 4x6.

Q. What have you to say, Mr. Hoff, as to the size of this open cut No. 3, San Francisco Chemical Company's cut No. 3?

A. It was just a common ordinary open cut.

Q. What is the size of it?

A. I could not tell you that exactly. I paid no particular attention to it, as the parties that had been there with me took the measurements of all those things and I took no more thought about it.

Q. Did they take measurements of all the San Francisco Chemical Company's tunnels and cuts?

A. They did.

Q. Who took those measurements?

A. Mr. Brooks and Mr. Pitts.

Mr. DEY.—I will put Mr. Brooks on next.

Q. Now, calling your attention again to the time when Mr. Jones, or when you did work for Mr. Jones, what time of the year was it, Mr. Hoff, in the spring



(Testimony of Charles Hoff.)

or fall or summer? [252]

A. Along in the summer, I think in the latter part of June.

Q. Now, you refresh your recollection, was it not in 1904 that you did this work for Mr. Jones?

A. It might have been.

Q. Isn't it a fact Mr. Jones left Montpelier, or left that country, quit working there at least, in 1904, in June of 1904?

A. It might have been. I think that was the time come to think about it now.

Q. That is the best of your recollection?

A. Yes, sir. I have no data on that whatever, and I could not say positively, but I am pretty sure it was in 1904, instead of 1905.

Q. Now, you were present, were you, when Duffield and Jeffs made locations on these claims?

A. I was not.

Q. You had no knowledge as to where the stakes were placed by them when those locations were made?

A. Not exactly.

Q. And did you assist in making the old Jones Lode locations?

A. I was not there when the stakes were all set, but right away after, and I went over the ground several times and he showed me.

Q. You testified that you were familiar with where the stake had been placed by Duffield and Jeffs when they made the locations of these various claims?

A. Exactly.

Q. Now, were you familiar? A. I was.

(Testimony of Charles Hoff.)

Q. How did you know and how did you come to have knowledge as to where those stakes had been placed by those parties?

A. I had been shown the stakes by them and was satisfied that they were practically as near to the old location points as in many instances could be.

Q. How did you know where the old location points were, if you were [253] not there when the stakes were set?

A. With Mr. Jones, I had been over the ground.

Q. No; I say as to the Duffield and Jeffs' stakes.

A. I had been shown them.

Q. How long after they had been set?

A. In 1908.

Q. Yes; that was a year afterwards?

A. A year after they located in 1907.

Q. So you did not know where the stakes were set in 1907? A. No; I was not there then.

Q. You did not know, and when you went over the ground with Mr. Pitts and Mr. Brooks and identified certain stakes to them, you had no knowledge whether those stakes or monuments which you pointed out as corners or discovery points were corners or discovery points as they had been established by Mr. Duffield and Mr. Jeffs in 1907?

A. I had been over the ground several times with Duffield and Jeffs, and they had shown me where their corners was.

Q. But you had no knowledge—where you had pointed out to Mr. Pitts and Mr. Brooks those monuments and stakes, you had no knowledge that those

(Testimony of Charles Hoff.)

particular monuments and stakes were at the points where the original stakes and monuments had been placed by Duffield and Jeffs?

A. Only as they were pointed out by them to me.

Q. When had they been pointed out?

A. In 1908.

Q. Just a year afterwards? A. Yes, sir.

Q. And may have been moved from the original locations, for all you know? A. Possibly so.

Q. Now, what kind of stakes did you say were there when you went up upon the ground after Duffield and Jeffs had made *their* [254]

A. There was some pine and some quaking-asps and some 4x4's.

Q. Some cottonwoods?

A. No cottonwoods; it is quaking-asp.

Q. Mr. Duffield testified there were some cottonwoods. Is he mistaken about that and confused them with quaking-asp?

A. He has got the name of the timber mixed.

Q. It is quaking-asp, instead of cottonwood?

A. Yes, sir.

Q. And did you ever take any measurements of any of those stakes? A. Not only by observation.

Q. You did not measure any of the mounds, did you, the rock mounds? A. No, sir.

Q. Didn't cut any of those stakes yourself?

A. No, sir.

Q. Now, in 1908, I understand you went into the employ of Messrs. Duffield and Jeffs on the 10th day of August. Is that correct?

(Testimony of Charles Hoff.)

A. That is correct.

Q. Do you know whether or not the stakes as they had been originally set were moved or replaced between August, 1908, and November, 1908?

A. I don't know anything about that.

Q. You don't know? A. No.

Q. Well, what is your best information as to whether or not the stakes which were there in August were the stakes which were there in November?

A. A great many stakes had been knocked down in various ways, some moved entirely, and every time that any of the employees went over the ground we endeavored to replace them.

Q. But have you any distinct recollection that between August, 1908, and November, 1908, that there was any replacement of stakes or [255] change made in the stakes?

A. Not that I know of. Mr. Colbath was on the ground at that time and had charge.

Q. Do you remember, in 1910, in April, that you did assessment work or went up to do assessment work upon those claims? A. I do.

Q. Did you have any conversation at that time with Mr. Groo, the foreman of the San Francisco Chemical Company? A. I did.

Q. What was it, Mr. Hoff, and where?

A. On the Overton claim?

Q. Yes.

A. I was there with my camping outfit putting up *and* fence and Mr. Groo came along and says, "Mr. Hoff, I want to notify you that you are trespassing."



(Testimony of Charles Hoff.)

I says, "That is all right." And he says, "If you continue to do any work here, you will be yourself held responsible as well as your company," and I told him that I was here to do as my company told me to do the *same* *he* was, and supposed they were able to take care of me and I proposed to go ahead and do the assessment work that is what I was sent there for. That is all the conversation there was.

Q. Did you do the work at that time? A. I did.

Q. Did you remain right on the ground?

A. I did.

Q. You did not go off of the ground at that time?

A. No, sir. I camped, stayed there until we got through in August.

Q. Did you remain there with the camp?

A. Off and on all the time.

Q. Isn't it a fact you left the ground immediately after this conversation? [256]

A. No, sir; my outfit was right there.

Q. I say personally didn't you leave the ground and go down town and stay there for some days?

A. No, sir; I was on the ground every day after the camp was pitched.

Q. And proceeded with your work? A. I did.

Q. Isn't it a fact that you took the matter up with your employers?

A. I wrote them a letter but I never stopped work.

Q. You inquired what you should do under the conditions?

A. I told them that I had been notified.

Q. You told them you had been notified?



(Testimony of Charles Hoff.)

A. Certainly.

Q. And asked whether you should proceed with the work?

A. No; I did not ask; I proposed to continue to work until I was stopped, is all.

Q. You didn't ask whether you should proceed with the work?

A. I simply told them Mr. Groo had notified me I was trespassing, and if you want the exact language of the letter, I think I can give you that.

Q. Well, I don't know that that is particularly material unless you care to give it, but what I am trying to get at is whether or not you continued with the work after you had had this conversation with Mr. Groo, or whether you left the premises and only resumed work upon further instructions?

A. Well, I can positively assure you I never stopped for a minute.

Q. Did you do any work that day other than to set up your tent?

A. Nothing more than to set up the tent, had men doing that.

Q. And worked the next day? A. Yes, sir.

Q. On what claim?

A. We started in on the [257] Overton.

Q. Who was with you, Mr. Hoff?

A. Mr. Cousins, Mr. Sampson and John Lindsay.

Q. At the time of this conversation?

A. Oh, Mr. Lindsay was the only one that was with me; he was putting up the tent.

Q. Who was with Mr. Groo?

(Testimony of Charles Hoff.)

A. I could not tell you the name, I think settlers, but I am not positive, and I did not know them well enough to remember their names.

Q. You have seen Mr. Groo and his men and the other employees of the San Francisco Chemical Company working in these various tunnels and cuts along this property? A. I have.

Q. From time to time and year to year as you have been over the ground back and forth? A. I have.

Q. These workings which you have described and which are set forth on exhibit 1 as 1, 2, 3, etc.?

A. Yes, sir.

Q. Now, Mr. Hoff, this exhibit 1 does not represent all the cuts, etc., which have been made and excavated by the San Francisco Chemical Company, does it?

A. I hardly think so; they have done work this year since—

Q. Haven't they done work there that is not shown here? A. Possibly so.

Q. As a matter of fact, isn't it true, Mr. Hoff, by your knowledge of the ground and being over it a great many times, that on some of these placer claims there are twenty or twenty-five or thirty cuts in addition to what has been shown here all the way along the deposit? A. Possibly so.

Q. Don't you remember that to be the case?

A. Yes, sir; that is about the case. I can show it to you on the Mt. Pleasant. [258]

Q. On the Mt. Pleasant, and for that matter all the way along on the Wonder and the Winter and the

(Testimony of Charles Hoff.)

Winfield and out here on the Colcock, and Overton also and there was twenty to twenty-five or thirty cuts that have been made by the San Francisco Chemical Company that are not shown on this plat at all? A. Oh, yes; there must be that.

Q. On each of these claims? A. Yes, sir.

Q. Do you know Mr. Glenn of Montpelier and Mr. Brennan? A. I do.

Q. And were you familiar with the particular property there that they had an interest in at one time, right along there on the north side of the creek?

A. I am.

Q. And do you know how that land was taken by them in the first place?

A. I don't know anything about it.

Q. You have no knowledge about it?

A. I don't know anything about it.

Mr. BUDGE.—I think that is all.

#### Redirect Examination.

(By Mr. DEY.)

Q. Mr. Hoff, you on cross-examination stated that the stakes were knocked down in various ways. I wish you would explain what you mean by that.

A. Well, the stakes were knocked down by cattle, sheep and the elements, cloud bursts in Gertch Hollow removed some of the stakes, also in the main Montpelier Canyon slides of rock caused by cloud bursts covered up one in particular that I know of, or removed it in the high water, and other cases it apparently looked as though the stakes had been carried away, for they could not have gone five or six

(Testimony of Charles Hoff.)

[259] hundred feet up on the mountain on different claims from the ones that they were supposed to stand on.

Q. Now, what instance of that kind have you in mind?

A. I found a Jimtown stake that had been used up here on the Obey a 4x4, that had been split with a pick and used in an incline with Duffield and Jeffs name on it.

Q. Whose incline? A. What?

Q. Whose incline?

A. On the San Francisco Chemical Company's claim.

Q. Go ahead.

A. Also the discovery of the Jimtown after I replaced it myself, a 4x4, was found one hundred feet down the mountain in a bunch of maple brush; it did not get there without hand; if it did, I don't see how it could do it and a great many cattle and sheep were destroying and knocking down the stakes in other respects.

Q. Take exhibit 1 in so far as the lode claims with the placers on it, was there other work, underground or surface workings that are not shown upon these claims that you have in mind? A. I think there is.

Q. Well, just point them out. Let us find out.

A. On the Mt. Pleasant there is a series of small open cuts coming along there on the side of the hill. These cuts, the tunnels and open cuts that is perfectly well seen from the canyon road as you go up, and

(Testimony of Charles Hoff.)

shows very plainly. All of them cuts don't come in there.

Q. Where are they?

A. And it is possible that there is an open cut where that had slid in, that Mr. Brooks and Mr. Pitts and myself did not think would cut much figure, [260] and therefore we paid no attention to it, but the work was done, and from the elements, the rain and storms of winter, they had caved in so they did not look as though that any work to amount to anything had been done.

Q. They were open cuts that had been?

A. Had been. That is the idea.

Q. Now, you were there to show Mr. Pitts and Mr. Brooks the property and the work done?

A. Yes, sir.

Q. To make this plat? A. Yes, sir.

Q. Now, didn't you show them all of it?

A. Yes, sir; as I stated before, showed them all the work but it caved off and we didn't make measurements and put it on the map.

Q. On cross-examination the work you have referred to as not being placed upon the map would be old surface strippings which had been since filled in?

A. Certainly.

Cross-examination.

(By Mr. BUDGE.)

Q. Well, do you mean to say, Mr. Hoff, that all of these various open cuts, all the way along this property to which you have testified, are simply open cuts that had been filled in?



(Testimony of Charles Hoff.)

A. Why, the travel of the sheep and the horses and cattle and the elements have naturally filled them in.

Q. Aren't there dozens of open cuts, and as I stated before, from twenty to forty cuts on the claim, the work of the San Francisco Chemical Company, that are not filled in?

A. Not entirely filled in.

Q. Aren't they well defined cuts, dozens of them?

A. No; I would not say there was dozens of well defined cuts, [261] defined enough so that you would know that work had been done there. That is all.

Q. But cuts which had simply been in a condition which had been slightly changed, the appearance of which had been slightly changed simply from the fact that perhaps a sheep herd had gone over them?

A. Certainly.

Q. But otherwise they were cuts and showed that considerable, a great deal of work had been done throughout those various cuts?

A. Certainly; they showed that work had been done.

Q. Now, there was no work that was done by Duffield and Jeffs, either by way of open cuts or tunnels, that is not shown on this Exhibit 1. Is that true? A. I don't think there is.

Q. In other words, this map shows all work of Duffield and Jeffs, don't it? A. Certainly.

Q. And it does not show but a small proportion, or shows only a small proportion of the open cut work of the San Francisco Chemical Company. Isn't that

(Testimony of Charles Hoff.)

true? A. Yes, sir; that is true, that is true.

Q. Now, when you say, Mr. Hoff, that some of these stakes were carried away, of course, you don't know and don't presume to say by whom they were carried away? A. No; I don't know.

Q. It may be that some person—

A. A sheep herder.

Q. Yes; might have carried this Jimtown stake up to wherever you say that was carried?

A. Up on the Obed.

Q. On the Obed lode claim and that it had been laying around there in the sage brush and perhaps got cut in two by a pick and used [262] because it was considered to have been no— A. Oh, no.

Q. No longer useful. How about that?

A. It was simply to show you that the stakes had been moved from their place.

Q. Yes; but I say it might have happened in that way.

A. Yes, sir; certainly; I would not accuse anybody.

Q. You would not say that Mr. Groo or any of his men tore those stakes down? A. No.

Q. Or any other employee of the San Francisco Chemical Company? A. No, sir.

Q. The mere fact in those two instances you cannot account for the position in which those stakes were found, save and except that somebody must have carried them somewheres— A. Yes; exactly.

Q. *Is all* there is of it? A. That is all.

Q. What was it you said was the condition here—I didn't quite understand you?

(Testimony of Charles Hoff.)

A. At the Mt. Pleasant?

Q. On the Mt. Pleasant.

A. There is a series of open cuts which can be seen very plainly from the wagon road; anybody can see them along in here close to these tunnels. This is in with them; these don't show on the map.

Q. What is in with them?

A. The tunnels, the tunnels that are there is in this group of open cuts and the tunnels which I explained was not on this map—they are right in there; here are some.

Q. They are all shown, all the open cuts that are there are all shown? A. That is right.

Q. Is that work of Duffield and Jeffs?

A. No, sir. [263]

Q. That is the San Francisco Chemical Company?

A. Yes, sir; that is what I referred you to.

Q. So that they are on the map Exhibit 1?

A. Right there.

Q. That is it right there then?

A. Yes, sir; that is correct, right there. I did not see them then when I spoke about it before. My sight is not good without my glasses on.

Q. Now, if Mr. Jones left there in 1904, in June, which you stated, I think, was to the best of your recollection, June, 1904— A. I think so.

Q. Now, when was it then you did the work? Was it the summer before that in 1903, the latter part of the summer of 1903 when you did work for him?

A. No, sir; I done the work when he done all the old locating.

(Testimony of Charles Hoff.)

Q. The old locating? A. Exactly.

Q. And what year was that?

A. That was in 1904.

Q. In 1904? A. Yes, sir.

Q. In the summer? A. Exactly.

Q. Following the time he left Montpelier, he came back later and then is when you did the work?

A. Then is when I done the work.

Q. Did you assist in locating these lode claims with Mr. Jones? A. No.

Q. I understood you to say that you put up some stakes.

A. I re-established some of the Duffield and Jeffs stakes.

Q. No; I am asking you about the Jones locations in 1904. A. Not on the Montpelier claims.

Q. Did you have anything to do with them at all?

A. Only doing location work after they were staked. [264]

Q. Did you observe the manner in which they were staked? A. Yes, sir.

Q. And did you see the notices and so on?

A. Yes, sir.

Q. And the stakes. What is your best judgment as to whether those stakes and monuments and discovery points and so on were sufficient and valid to conform to the requirements of locating claims?

A. I think they complied with the requirements of the law all right.

Redirect Examination.

(By Mr. DEY.)

Q. Will you please look again at Exhibit No. 1 and



(Testimony of Charles Hoff.)

see if that, so far as the lode locations are concerned, whether or not there is not shown all the openings in the ground that existed last July, July, 1910, that were then open.

A. I believe I can tell without looking at the map. I know Mr. Brooks was very particular in getting all this work when he was there, but nevertheless there is such a series of pits and open cuts dug along and so many sheep and cattle had traveled over them, so much that I hardly thought it worthy of making mention of on the map, and there was some that was overlooked.

Q. In what condition were they last July?

A. They looked as though there had been work done there and had been filled up by the travel of sheep and cattle and the elements and the storms and everything of that kind.

Q. So that they were not open at that time?

A. No; I would not call them open. [265]

Cross-examination.

(By Mr. BUDGE.)

Q. Do you mean that that condition was true as to all these twenty or thirty cuts on all these claims?

A. I mean that they was not cleaned out or showed up to the extent of what they was intended to be showed.

Q. You don't know as to what the intention was, do you? Now, do you mean to say that these various cuts were not—what you term open cuts of these twenty or thirty, that are on every claim, every claim belonging to the San Francisco Chemical Company,



(Testimony of Charles Hoff.)

or claimed by that company, that those were not open cuts, those that are not shown on this map?

A. Well, they were intended for open cuts.

Q. So the intention was that they were open cuts. But as a matter of fact, they were cuts, a great many of them which had been—work on which had been done during the previous year, a great many of them? A. Stripping and open cuts.

Q. The previous year some of them?

A. Certainly.

Q. Yes; and that was true as to the cuts which occur all the way along this deposit throughout these various claims here? A. Certainly.

Q. Now, as a matter of fact, Mr. Hoff, wasn't there some tunnels, open tunnels which are not shown on these maps? A. I don't think so.

Q. Are you sure of that?

A. Well, I would not be sure of that, but I don't think there is.

Q. So that from your examination on this Exhibit 1, you would not be positive but what there are even tunnels that are not shown?

A. There may possibly be, but I don't think so.

Mr. BUDGE.—That is all. [266]

Redirect Examination.

(By Mr. DEY.)

Q. Isn't there a stripping shown on Exhibit 1?

A. Oh, yes; lots of it.

Q. Is there any that is not?

A. There may be a little on the Fentress that is not shown.

(Testimony of Charles Hoff.)

Q. (By Mr. BUDGE.) That is not shown?

A. That is not shown.

Q. There may be a little on the Fentress?

A. On the Jimtown there is no stripping; it is open cuts there.

Q. That is not shown?

A. Oh, no; it is shown.

Q. I am asking you that which is not shown.

A. None, only on the Fentress here and on the Overton. There may be some open cuts that have all caved in that was not measured.

Q. Mr. Budge says there were twenty to thirty to the claim. Is that what you say?

A. No; I would not say that there is twenty or thirty.

Q. What do you mean to say as to strippings or open cuts last July not shown on Exhibit 1?

A. There might possibly be eight or ten along the lode all the way that is not shown, small open cuts there or strippings or something of that kind, but there is a series of strippings which I think Mr. Brooks took it as a series of strippings.

Q. Are they the ones that were filled up in the manner you have described? A. Certainly.

Q. Can you give the dimensions?

A. No; I could not give the dimensions. I did not take the dimensions. Mr. Brooks has the dimensions of all of them, and therefore I paid no attention to it. [267]

Q. Mr. Brooks took the dimensions of all of those you are now referring to? A. Exactly.

(Testimony of Charles Hoff.)

Cross-examination.

(By Mr. BUDGE.)

Q. Now, calling your attention to that Jimtown lode, Mr. Hoff, isn't it a fact there are open cuts strung all the way along the Jimtown and making a hole almost like a wagon road?

A. No, sir; not all the way.

Q. Well, for a considerable distance along that Jimtown that is not shown on Exhibit 1?

A. From this end line?

Q. Yes. Which end line? The south end?

A. The south end line of the Jimtown along into the hollow there near the discovery there is a stripping for some distance; I would not like to say how much.

Q. Aren't there open cuts?

A. Well, it is open cuts—was at one time, but looks like a stripping now.

Q. Was open cuts? A. Yes, sir.

Q. And in other places there are similar conditions? A. Certainly.

Q. So that all the way along this deposit there are open cuts similar to what you found on the south end of the Jimtown, open cuts which you have termed in one sense strippings, but open cuts nevertheless, that there are open cuts such as this all the way along these claims that are not shown upon this map?

A. Yes, sir—not all the way along.

Q. Oh, no; I don't mean to say that they are altogether there in a string. A. Certainly.

Q. But at intervals? A. There might be.

(Testimony of Charles Hoff.)

Q. Are there not—

A. I would not say there were not. [268]

Q. Don't you know that going over this ground that is the fact?

A. Once in a while we missed some, we did not make a note of.

Q. I am asking you if you don't know from going over this ground that that condition does exist from time to time all the way along and at intervals all along this deposit, open cuts such as there are on that? A. I would not say that I did know.

Q. And you wouldn't say that you don't know?

A. Yes; that is the idea.

Redirect Examination.

(By Mr. DEY.)

Q. How large an opening is there that is not shown on the map, surface opening?

A. I could not answer that question.

Q. Well, what is your best recollection?

A. I paid no attention to that because Mr. Brooks was taking the measurements of all that work and I gave no heed to the size or anything about it.

Q. Do we infer now that he has omitted some that you recall? A. Possibly.

Q. Now, how large were those openings?

A. I can recall one on the Overton where it was nothing but slide rock.

Q. On the Overton, and how large?

A. As to the measurements I could not—

Q. You could not say what it would measure, or how large it had been or was at the present time?

(Testimony of Charles Hoff.)

A. I paid no attention to it and did not think it worthy of measuring; still at the same time you could see there had been quite an amount of work done.  
[269]

Q. Now, Mr. Hoff, isn't it a fact that that slide rock that you refer to is outside of the boundaries of the lode? A. Oh, no.

Q. On the claim?

A. In the condition of the mountains, sometimes we have slide rock coming down from the mountains; that is the condition of it; it runs right over the lode, which occurs beyond the Overton.

Q. Well, there is work—there has work been done there within the boundaries of the placer but outside of the exterior boundaries of the lode claims, has there not?

A. I don't know of any work being done outside of the exterior of the lode claims on the placer claims.

Q. You don't know of any?

A. With the exception, I will say, only by observation across the canyon, I think on the Colcock placer, on the east side of the canyon, you can see where there has been a series of open cuts which is done on the Colcock placer.

Q. There is a tunnel on the Mt. Pleasant, there is a tunnel on the Winslow placer, isn't there?

A. All within the boundaries of the lode claims.

Q. That is not within the boundaries of the lode claim? A. I don't know of any.

Mr. DEY.—That is all.

Mr. BUDGE.—That is all. [270]

\* \* \* \* \*



[**Testimony of Guy Sterling, for Complainants.**]

GUY STERLING, a witness produced by complainants, being first duly sworn in this cause, to tell the truth, the whole truth and nothing but the truth, deposed and testified as follows:

Direct Examination.

(By Mr. DEY.)

Q. What is your full name?

A. Guy Sterling. [293]

Q. Where do you reside? A. Salt Lake City.

Q. What is your profession?

A. Civil and Mining Engineer.

Q. Where were you educated for your profession?

A. Cornell University, and study since I graduated.

Q. What year did you graduate in? A. 1887.

Q. Since that time have you followed the practice of your profession? A. Yes, sir.

Q. Where?

A. You mean with reference to mining engineering, or both that and civil engineering?

Q. We will limit it to mining engineering.

A. In mining engineering my practice has been in Utah, Idaho, and the western states.

Q. Ever since 1887? A. No; since 1898.

Q. To what extent generally?

A. Well, I have been a Deputy Mineral Surveyor since 1899, I think, and have made mine examinations and mine surveys in private practice since then, comprising metal mines in this state, and also iron deposits in this state.

(Testimony of Guy Sterling.)

Q. Have you any experience in phosphate deposits? A. I have.

Q. In the west?

A. I have been engaged off and on in the study of these phosphate deposits in the northern part of Utah, I think since 1906 or 1907, off and on.

Q. And how extensively?

A. I have been all over the Crawford Mountain area.

Q. Where is that?

A. That is in Rich County, in the northeastern part of Utah; and I have been over these claims here, shown on Exhibit No. 1, and over some ground near Raymond Canyon, which I think comprises the China and Japan lodes [294] and the Fryerson lodes.

Q. In what capacity have you had occasion to make examinations of phosphates generally?

A. On the Badley claim, in the Crawford Mountain area, I was called upon by the Government to make reports there in regard to the mode, occurrence and general geologic conditions there, with reference to these phosphate deposits, and studied that ground pretty thoroughly.

Q. How extensive is the district in which these deposits, as shown on Exhibit 1 and Exhibits "A" and "B," occur?

A. In the whole occurrence, so far as I know it—

Q. In that and the surrounding districts.

A. Well, my acquaintance covers, you might say it actually does cover the ground from the Obey lode to the southern end of the Crawford Mountains, and

(Testimony of Guy Sterling.)

I imagine the deposits between those two extremes would probably be in the neighborhood of ninety miles; I have not measured that, but I presume it is about ninety miles from the southern end of the Crawford Mountains to this Obey lode above and north of Montpelier.

Q. (By Mr. BUDGE.) About ninety miles?

A. I have not measured it, but that is my estimate.

Q. The Obey and other lode claims shown on Exhibit 1, are in the Crawford Mountains, are they?

A. No, sir. The Crawford Mountains are south-erly of this from sixty to ninety miles, I should say, and are in Utah, while the Obey lode is in Idaho, north of Montpelier.

Q. In what range of mountains?

A. Well, I really don't know whether this area is called the Bear River Mountains or not, but I think probably they are a part of the Bear River [295] Range, but I am not sure of that.

Q. You heard it named here yesterday, the Preuss?

A. Preuss? Yes; I believe that is probably right.

Q. Called the Preuss Mountains. Now, what is the mountain range where the China and Japan lodes are situated? A. That is the Sublette Range.

Q. From your examination and investigation, is there a general similarity in the formation and nature in which the phosphate occurs throughout the territory?

A. Yes, sir. I think it was in a general way, I think it was similar and alike throughout, and I think it is unquestionably all within one geological

(Testimony of Guy Sterling.)

formation, the same throughout.

Q. I wish you would then, in general, describe the nature, formation and characteristics of the phosphate deposits throughout this territory that is just referred to.

A. To answer that question, if you will permit it, I have a statement that I prepared on that very question in the spring of 1908.

Mr. DEY.—If there is no objection to it you can read it.

Mr. BUDGE.—We object to that as incompetent.

Mr. DEY.—If there is any objection you may use it to refresh your recollection.

Q. You have prepared a statement of the general characteristics?

A. The part I was going to use applies in general, and does not apply particularly to any one section, in answer to your question.

Q. And is technical in its nature?

A. Yes, sir; somewhat. [296]

Q. Somewhat technical.

Mr. DEY.—Do you still object?

Mr. BUDGE.—Yes; I would prefer to have him describe it himself.

WITNESS.—This is my own statement, and I simply desire to use it because it was more carefully and systematically stated than I would undertake to do it from memory.

Q. There can be no objection, of course, to your refreshing your recollection in answering the questions with that aid.



(Testimony of Guy Sterling.)

A. This deposit of phosphate rock consists of a series of bedded veins of rock containing varying proportions of calcic phosphate—

Q. (By Mr. BUDGE.) You are reading, are you not? A. Yes, sir.

Mr. BUDGE.—For the purpose of the record, we object to the witness reading the report, on the ground that it is incompetent.

Q. You may use it to refresh your recollection, and proceed to answer the question.

A. The individual veins of the series of veins vary in thickness from a few inches to ten or twelve feet. Only a portion of the veins contain rock sufficiently rich in calcic phosphate to be of commercial value, and only a portion of the veins are thick enough to be profitably mined, even when the contained proportion of calcic phosphate is sufficiently high.

Pure calcium phosphate is a chemical combination of phosphorus calcium and oxygen in the following proportions:

Phosphorus.....	20 per cent	
Calcium.....	38.7	“
Oxygen.....	41.3	“ [297]

Calcium phosphate is a mineral substance widely but sparingly disseminated, and an essential but subordinate constituent of many plants, and of all higher animal structure.

Q. (By Mr. BUDGE.) You are still reading, are you, Mr. Sterling?

A. Not absolutely reading it; some of it I am putting in that is not here.



(Testimony of Guy Sterling.)

Q. (By Mr. BUDGE.) Some you are reading?

A. Some I am reading, and some I am not.

Mr. BUDGE.—We make the same objection to this.

A. The mineral apatite is a crystalline variety of calcic phosphate, while the variety found in the veins of this lode location is massive in form, that is uncrystallized, but may be properly termed phosphorite.

Q. You say the veins of this lode location. I am asking you generally, without reference to any specific locality.

A. You ask me what?

Q. Generally throughout this territory that you are familiar with?

A. This is the general description of the whole deposit.

Q. Proceed.

A. Physically, the higher grade vein rock occurring in the veins of the lode claim on this deposit is grayish, bluish-black. It is homogeneous in appearance, and is composed of small colitic rounded grains, cemented together by an extremely thin film of probably calcite and silica. The high grade of vein rock weighs about 180 pounds to the cubic foot. The low grade vein rock is softer and lighter, and is composed of smaller grains, and ranges in color from light brown to intense black. Rock containing above 70 per cent of calcic [298] phosphate, that is, 14 per cent of phosphorus, is, under present conditions, classed as high grade rock. Rock containing 50 per cent to 70 per cent of calcic phosphate is classed as

(Testimony of Guy Sterling.)

low to good grade. The vein rock as mined is known commercially as phosphate rock. Its value depends essentially, and almost solely upon the contained proportion of phosphorus, although commercially the rock is generally classified according to its contained percentage of calcic phosphate. Taken as a whole, the above mentioned series of bedded veins of phosphate rock, and also each of the individual or separate veins of the series, lies between, is conformable to and is bounded by walls of rock, which wall rock is generally limestone, but often is a very silicious or cherty limestone, or a soft sandstone, or a shale, or perhaps a quartzite.

In general the walls and veins of the deposit conform to each other, and while the dip varies from a foot to practically vertical, the strike is generally northerly and southerly. The course of the veins may be traced by the detached pieces of phosphate rock lying on the surface and along on the apex of the vein. From the position of the hanging and foot walls of the series of the veins, I estimated the thickness of the series of veins, taken as a whole, to range from 30 to over 100 feet. The individual veins of the series of veins of phosphate rock are separated from each other by strata of limestone, chert or shale, and these separating strata or walls vary in thickness from less than an inch to several feet. Taken as a whole, the series of veins lies [299] between and is clearly limited and defined in extent and position by solid, massive walls of hard, silicious limestone.

Within the series of veins, the separating strata

(Testimony of Guy Sterling.)

limit and define the extent and position of the corresponding individual veins of the series, and are the walls of those individual veins, and the strike and dip of the veins and walls conform to each other throughout the whole deposit. I thus find that taken separately or as a series, that is, as a whole, the veins are obviously in place between walls, have a well-defined dip and strike, and are an essential part of the mountain on which the deposits occur.

The most striking feature of the surface indications along the deposit is the frequent, prominent, and often precipitous outcrop of the hanging or foot wall formation of the series of veins. The line of demarcation between the veins of phosphate rock and their walls of limestone, shale or chert, is sharply defined and distinct. In other words, the vein rock terminates and the wall rock begins abruptly, and the distinction between the phosphate rock of the vein having commercial value due to its contained percentage of phosphorus, and the wall rock having no commercial value, is readily determined by visual inspection.

Chemical analysis shows that the limestone and chert walls of the veins of phosphate rock contain from one to two per cent, and occasionally as much as ten per cent of calcic phosphate, that is, from .2 of one per cent to 2 per cent of phosphorus, as in fact many deposits of limestone and other rocks do, but such rock has no present value whatever on account of its [300] contained percentage of phosphorus.

(Testimony of Guy Sterling.)

The veins of phosphate rock are mined in the same manner that is followed in mining other veins of valuable ore, containing gold, silver, copper, etc., that is, the locus of the series of veins or of any vein of the series is determined by the dip and strike of the vein or veins, and the veins are explored and the vein rock extracted by means of tunnels, drifts, shafts, etc., care being taken to exclude the wall rock from the vein rock, as the latter is mined.

The limestone strata forming the walls of the bedded veins of phosphate rock, and the veins themselves are sedimentary in origin, and probably belong to the upper carboniferous formation. The existence of the veins of phosphate rock may be accounted for by supposing that a bed of limestone originally occupied the position of one of the veins of phosphate rock, and that the bed of limestone was covered, while in its original horizontal position, with a bed of animal and vegetable remains, shells, excrement, and other material containing free phosphoric acid, and soluble phosphates. Water percolating from above through this mass carried the phosphoric acid and soluble phosphates down to the underlying bed of limestone. By the contact of the phosphoric acid and the soluble phosphates with the limestone, chemical action was brought about, resulting in the formation of a bed of calcic phosphate, where originally was a bed of limestone. In the course of time other beds of limestone and calcic phosphate were successively and alternately deposited one above the other through the entire series of veins. [301]



(Testimony of Guy Sterling.)

Consolidation and concentration of the beds of calcic phosphate thus formed were brought about by the pressure of subsequently deposited formation. After being continued for an indefinite period this process was followed by a series of uplifting and folding movements, which finally brought the veins or beds of phosphate rock and their limestone walls to their present position and condition. That covers a description of the general deposit, and takes up everything except the assays of phosphate rock.

Q. Does it require any treatment?

A. Yes, sir; of course, in order to separate the phosphorus from the rock it requires a chemical treatment, and in order to prepare the phosphate rock for fertilizer purposes it is almost universally the custom to treat that with sulphuric acid to get the phosphorus in soluble form so that plants can take it up.

Q. What is the mineral substance termed?

A. The phosphorus?

Q. Yes. A. Repeat the question.

Q. What is the mineral substance? What is the term of that, for the mineral substance?

A. The term?

Q. Strike that out. Is this classified as ore?

A. Phosphate rock, yes, sir, where it is of commercial value or is liable to be of commercial value.

Q. Directing your attention now to the lode claims shown by Exhibit 1, when did you visit that vicinity?

A. I will have to refer to my notes for that. We began the examination of the Obey lode on October



(Testimony of Guy Sterling.)

29th, 1910, and we continued on the 30th, and proceeded down to the Wayne lode. [302]

Q. Who was with you?

A. Mr. Wilson and Mr. Duffield and Mr. Hoff.

Q. Were there any surface indications of ore?

A. Of ore?

Q. Yes. A. Yes, sir.

Q. Just describe them throughout the claims.

A. Well, in a general way we saw exposures of phosphate rock in digging, and also by the mere stripping of the outcrop of the veins throughout the entire thirteen claims shown on this Exhibit No. 1.

Q. Throughout the entire length? A. Yes, sir.

Q. Now, you started in, did you, at the Obey?

A. Started in at the Obey lode.

Q. Now, Mr. Sterling, in your own way, please start in with your examination there, and describe the nature, formation and characteristics of the ore deposits throughout all of these claims.

A. Well, we began at the north end of the Obey lode; we went to a tunnel which we designated as Tunnel No. 1—I would not be always sure that our numbers corresponded with those numbers upon the map, but I will give the dimensions as we estimated them in a rough way here as being those of the workings, and all of our bearings are magnetic bearings.

We commenced at Tunnel No. 1, which had a bearing of south 73 degrees east, and a length of 60 feet, and in this tunnel found a vein of black phosphate rock that had a dip of 30 degrees to the west, and a strike south 10 degrees east.

(Testimony of Guy Sterling.)

We then went to Tunnel No. 2—

Q. Does that cross-cut the phosphate vein? [303]

A. Practically; yes, sir.

Q. Can you describe the vein there any more?

A. That is all the information I have on that, except there was a vein there of black phosphate rock, which appeared—I haven't got the width and thickness of it.

We went to Tunnel No. 2.

Q. You can state from your recollection, can't you?

A. I think, although I won't be absolutely positive to it, and of course it is so long since I was there, that I have forgotten some of the details,—but my impression is that the tunnel was all in phosphatic material, but I don't think the limitation of that particular vein was clearly shown, although the bedding planes were shown.

Q. Anything shown in the way of walls?

A. I don't think there were any walls shown in that tunnel.

Q. Was that tunnel driven in the direction of the course of the vein, or across it?

A. The vein appears, as I have said, dips to the west; so that even if this tunnel No. 1 was driven on the vein, and as the tunnel has an easterly direction, of course it would cross-cut the tunnel or the veins if it went into them at all.

Q. Well, give the full information as you proceed.

A. We then went to Tunnel No. 2, which had a magnetic bearing of 40 degrees east, and a length of

(Testimony of Guy Sterling.)

about 50 feet. In this tunnel the dip was flat and indefinite, and the phosphate rock was of a black shaly nature, and the entrance to the tunnel was mostly in wash, but the wash was discolored and seemed to be decomposed phosphate rock. [304]

We went to Tunnel No. 3, estimated to have a length of 50 feet, magnetic bearing north 45 degrees east. In the face of this tunnel there was some low grade phosphate rock and some chert and shaly limestone in place. This chert and shaly limestone was unquestionably a wall of that particular vein of phosphate rock that showed there in the face of the tunnel, and the dip of this was 25 degrees westerly, and had a strike of south 15 degrees east magnetic.

We then went across Gerteh Hollow, which there drains to the southeast, and went to Tunnel No. 4. This tunnel had a bearing of south 10 degrees east magnetic, estimated to be 55 feet long, and was driven approximately on the strike of the phosphate vein. In this tunnel we observed good phosphate rock on the side of the tunnel; in the roof it showed a limestone wall and shaly phosphate rock in place—that is, both the limestone and phosphate rock were in place. In the face of the tunnel there was some more phosphate rock in place, and it had a dip of 27 degrees to the southwest. We went to cut No. 5. This was 18 feet long and had an 8 foot face, and was driven on the outcrop of the beds of phosphate rock, which outcrop shows along the side of the hill, one of the beds of phosphate rock being exposed. Some of it showed a high grade rock and veins or beds of

(Testimony of Guy Sterling.)

from 4 to 5 feet thick. In one place there was three beds of material shown. In this cut the veins had a dip of 40 degrees westerly, and a strike of south 15 degrees easterly. Cut No. 5, that is [305] this cut, cross-cuts the veins and shows one vein of good phosphate rock 5 feet thick.

We then went to the Obey discovery, and found here an irregular cut showing black phosphate rock, apparently low grade, in place, having a course and dip and strike as heretofore shown.

There was a solid limestone footwall shown, and was also shown in the cuts before referred to on the Obey lode. From the examination of the surface I estimated there that the series of beds of phosphate rock was about 60 feet thick.

From Tunnel No. 4 to the Obey discovery, which I estimated to be 400 to 450 feet, the lower part of the phosphate beds, or series of beds, was stripped, and the outcrop of the phosphate rock in place is clearly shown on this stripped ground. We took a sample from the vein at the Obey discovery.

Q. Is that sample No. 1?

A. We had sample No. 1. I did not take the sample personally. It was taken by Mr. Wilson. I observed him take it, and saw him take it and mark it so that we both would know what the sample was.

Q. How was it taken?

A. We took a pick and picked out some rock out of the phosphate vein, probably about half a pound of rock, of the vein rock. We then went to the Obed lode, which lies south of and adjoining the Obey lode.



(Testimony of Guy Sterling.)

The outcrop which I have just described as being stripped on the Obey lode, was also stripped on the Obed lode, and the length stripped along there I estimated as [306] 800 feet in length.

We then went from the discovery of the Obed lode to what we call cut No. 6 in the tunnel. The cut was at the entrance of the tunnel there, 20 feet long. The tunnel had a bearing of south 75 degrees west magnetic, and showed about the same conditions that I have already described in cut No. 5, except the dip was 38 degrees westerly, and the strike was south 30 degrees east. On the floor of this tunnel we noticed some low grade phosphate rock.

Then we went to cut No. 6, which is at the Obed discovery, and took a sample of the phosphate vein as exposed there.

Q. The number of that sample? A. No. 2.

Q. Did you take it?

A. I think Mr. Wilson took that one also, but I was there and noticed him take it, and saw him mark it.

Q. If you took any of them just remind us when you get to them.

A. Yes, sir. We came to Tunnel No. 7. This was caved in and we could not enter. The phosphate rock showed near the portal and on the dump by the tunnel.

We went to cut No. 8. This is near the center of the Obed lode, and runs at right angles to the strike of the phosphate vein. It showed 6 foot vein of high grade phosphate rock in place, and the limestone wall. The limestone footwall of the series shows ore



(Testimony of Guy Sterling.)

in place at several points between cut No. 8 and the Obed discovery; outcropping above the surface.

On the Obed lode the Winfield placer discovery shows a bed of phosphate rock in place in the bottom of the gulch running across the southerly end of the Obed lode. We came [307] to the portal of the tunnel where men were working, and we were informed that we could not enter.

We then went to the Jimtown lode, which lies to the southerly of and adjoins the Obed lode. We went to cut No. 9, the Jimtown discovery. Now, that is marked on this Exhibit No. 1 as cut No. 10. This discovery in cut No. 9, as I have called it, is near the northern end of the Jimtown lode, and at this cut the hanging-wall of limestone showed clearly in place, and also a bed of phosphate rock. The dip was westerly and the strike southerly.

Q. What was the hanging-wall?

A. Limestone. We took a sample from this cut, which was sample No. 3.

Going southerly from the Jimtown discovery we find the veins of phosphate rock showing in a number of small cuts, but the formation was somewhat broken and twisted, so that the dip and strike could not be accurately taken, but the rock both veins and walls, was clearly in place.

We then went to Tunnel No. 10, which is probably the one marked here as tunnel No. 12. We were given to understand that this was driven by the—what is the name of the defendant?

Q. The San Francisco Chemical Company.

(Testimony of Guy Sterling.)

A. The San Francisco Chemical Company, and we did not enter this tunnel. At the entrance, however, I found the strike of the vein to be south 10 degrees east, and the dip 20 degrees westerly. This tunnel was apparently driven on the strike of the vein, which showed at the entrance of the tunnel  $4\frac{1}{2}$  feet of good phosphate rock. [308]

We next went to Tunnel No. 11—this I think is marked on here as Tunnel No. 13—that is called so on here, I mean on Exhibit No. 1. This was driven for a short distance at right angles to or cross-cutting the vein, and then it turned to the right and was driven approximately on the strike of the vein northerly. Here the limestone footwall showed clearly in place.

We then went over to the Fentress lode, and we went to what I have marked as workings No. 12, which is marked I think on Exhibit No. 1 as No. 15. This was an incline shaft about 10 feet deep, and shows the phosphate veins in place, with limestone walls, which had a southerly strike and dip of 40 degrees to the west. 100 feet westerly and above this incline the chert hanging-wall, characteristic of the series of the phosphate beds, outcropped very boldly and plainly.

We then went to the workings No. 13, which are at the discovery cut of the Fentress lode—I am mistaken about that. I should have said this incline shaft I have just mentioned was the discovery workings as I understood, of the Fentress lode. There was a vein there of phosphate rock which appeared to be high

(Testimony of Guy Sterling.)

grade, 5 feet thick. We took the sample No. 4 here.

Q. Sample No. 4 by Mr. Wilson?

A. By Mr. Wilson. At the discovery the vein had a strike of south 30 degrees east, and a dip of 22 degrees west magnetic.

We then went into the Cumberland lode. In going from the Fentress to the Cumberland we went along the vein to the north [309] end line of the Cumberland, which joins the south end line of the Fentress lode, and just within the north end line of the Cumberland we came to the cut and incline which I have designated as No. 14, 10 feet deep, which showed a 6 foot vein of phosphate rock with the limestone wall. The strike of the formation there of the wall and the vein was south 12 degrees east, and the dip was 27 degrees westerly.

From this cut running southerly through the claim for about 300 feet the outcrop of the phosphate vein had been partly stripped, and along this outcrop the footwall outcropped very prominently. We went next to the discovery incline of the Cumberland, and this was designated as No. 15. The incline was about 8 feet deep, and the phosphate vein and the walls shown in this incline were clearly in place, and had a dip of 30 degrees to the westerly, and a strike of south 15 degrees west; and Mr. Wilson here took sample No. 5.

We then went to what we called Tunnel No. 16. This is westerly of the Cumberland discovery, and is probably the one that is designated on the Exhibit No. 1 as No. 17. Tunnel No. 16 is driven approxi-

(Testimony of Guy Sterling.)

mately on the strike of the vein, which we estimated at 150 feet long, and had a cross-cut to the east. In this tunnel the phosphate rock both soft and hard appeared in place, and we took sample No. 6 from the face of the cross-cut, where the vein was about 6 feet thick.

Q. (By Mr. BUDGE.) Where was that?

A. In this tunnel here, Mr. Budge. (Indicating.)  
[310]

Q. (By Mr. BUDGE.) In the Cumberland, or on the Cumberland?

A. Yes, sir. It is marked here No. 17. We took our sample No. 6a in that cross-cut which runs to the east.

Q. Sample No. 6? A. 6-a.

Leaving this tunnel we went along the vein on the Cumberland lode, and we found several tunnels and cuts showing veins and walls of phosphate rock in place. The Cumberland lode is in the westerly side of the Montpelier Creek Canyon, and its northerly end is near the junction of the Gertch Hollow and Montpelier Creek. I have noted that the dam and intake-house of the Montpelier Water Works are located within and near the southeast corner of the Cumberland lode. You wanted me to stop when I come to the Overton lode.

And thereupon the further taking of the testimony in this cause was, by consent of said parties, adjourned until tomorrow morning, the 19th day of May, 1911, at the hour of 9:30 o'clock. [311]

Friday, May 19, 1911.

At this day come again said complainants, by



(Testimony of Guy Sterling.)

Messrs. Charles C. Dey and C. B. Jack, their solicitors and counsel; and the said defendant, by Mr. Jesse R. S. Budge, its solicitor and counsel, also comes; and thereupon the further taking of the testimony in this cause is resumed pursuant to adjournment.

GUY STERLING, heretofore duly sworn, recalled for further direct examination by Mr. Dey, testified as follows:

Q. You may proceed, Mr. Sterling, where you left off at the adjournment last evening.

A. I begin at the Overton lode. Leaving the Cumberland lode we went to the Overton lode, which is on the westerly side of Montpelier Creek, and joins the southerly end line of the Cumberland lode. We went to Tunnel No. 17, our No. 17. You will notice the last tunnel I had here was our No. 16, and that is marked No. 17 on Exhibit No. 1, and then there are a great many other tunnels; tunnels and other openings upon the Cumberland lode that we went in and looked into, but made no particular note of, and passed over into the Overton lode, so that our tunnel No. 17 is probably the tunnel marked as No. 28 on Exhibit No. 1. This tunnel bears northwest and is mostly in the wash, although the phosphate rock apparently appears in place in the face of the tunnel, which cross-cuts the direction or strike of the vein.

Next to the old incline which we call No. 18, which is [312] about 60 feet northerly of the Overton discovery, and is marked No. 33 on Exhibit No. 1. Here we found a thick bed of phosphate rock in place,



(Testimony of Guy Sterling.)

having the characteristic strike and dip of the formation.

We then went to No. 19, which is at the Overton discovery, and in this cut there is shown two feet of phosphate rock, low grade, and then two feet of limestone, and then four feet of phosphate rock. These were all in place, and the cut is approximately on the strike of the vein. We took sample No. 7 there—Mr. Wilson took it.

Q. That was No. 7?

A. Yes, sir. The strike of the vein there was south 15 degrees west magnetic, and the dip was 37 degrees westerly magnetic.

Q. The last sample I had was 6-a?

A. 6-a; and this is 7. That ends all we did for October 29th.

Q. I want to call your attention a moment to one sample I understood was taken by Mr. Hoff, when you come to that.

A. I don't believe I have designated them. They were all handed—

Q. All right; go ahead.

A. Now, you said yesterday to stop at the gulch; you meant on account of the recess?

Q. On account of the recess, yes, sir.

A. Commencing October 30th, on the Mt. Pleasant lode, we went first to the Mt. Pleasant discovery, which is in the southerly end of the claim, and I will just locate the Mt. [313] Pleasant lode also. It lies on the easterly side of Montpelier Canyon, opposite and practically parallel with the Overton lode,

(Testimony of Guy Sterling.)

the southwest corner of the Mt. Pleasant being near the southeast corner of the Overton, these two corners being in the bottom of Montpelier Canyon.

At the Mt. Pleasant discovery is our Tunnel No. 20, which runs southerly 60 feet or more as estimated by us, and is probably the tunnel marked 40 on Exhibit No. 1. 20 feet from the face of this tunnel on the right side we took sample No. 8 of phosphate rock. In this tunnel the formation was folded, but the strike was about south 30 degrees east, and the dip was 17 degrees 45 minutes westerly. The formation was twisted and folded indefinitely. We took sample No. 8—

Q. (By Mr. BUDGE.) Where was this point that it was folded?

A. It was in this tunnel marked No. 4 on Exhibit No. 1. Sample No. 8 was taken from a bed of good phosphate rock about 4 feet thick, along which the tunnel runs, and this vein of phosphate rock was in place.

We then went north 500 or 600 feet in the Mt. Pleasant lode and came to our Tunnel No. 21, which runs southerly about 30 feet and shows a vein of phosphate rock with a limestone wall in place. The strike of the vein here was southerly, and the dip was flat but to the westerly.

We next went to Tunnel, to our Tunnel No. 22, which probably is the tunnel marked 34 on Exhibit No. 1. At this tunnel I took a sight with the clinometer across the canyon to the outcrop of the vein opposite. We found the slope was [314] 12 de-

(Testimony of Guy Sterling.)

grees, which I considered at that time the dip of the beds or veins between those two points.

Q. (By Mr. BUDGE.) Please designate that.

A. The mouth of Tunnel No. 34 and the mouth of the incline at the workings No. 33 on the Overton lode. The idea was to determine approximately the slope or dip of the vein before it was eroded by Montpelier Creek. At this Tunnel No. 22, our 22, the phosphate lime walls were clearly in place, although they were distorted and folded. We estimated the tunnel was 35 feet long and runs southeast, but turns to the left near the face. I have a note here that a sample was taken there from the vein in Tunnel No. 22, but I haven't any number for the sample.

From Tunnel No. 22 we went along the outcrop of the vein to the northerly end of the Mt. Pleasant lode, and observed several workings on phosphate rock, the footwall of which appeared all in place.

We then went to the Arkansas lode. This lode lies southeast of the Mt. Pleasant lode, but is not contiguous to the latter, except the northeast corner of the Mt. Pleasant and the northwest corner of the Arkansas. Within the Arkansas and within about 300 feet south of the north end line, four or five small cuts show phosphate rock and a lime hanging-wall clearly in place. The dip was 24 degrees westerly, and the strike south 10 degrees easterly magnetic. The dip here was nearly parallel to the surface slope of the hill, the surface of the hill.

We went next to Tunnel No. 22 (?), at the discovery of [315] the Arkansas, which we found to be about 25 feet long, and that the lime hanging-wall

(Testimony of Guy Sterling.)

showed plainly, and there was 6 feet of good phosphate rock there also. We took from there sample No. 9 from the face of the tunnel. The dip was flat at that point.

Q. (By Mr. BUDGE.) Tunnel No. —

A. Tunnel No. — It is the discovery, near the discovery of the Arkansas, and I think it must be the diggings there at the discovery or the tunnel No. 46 probably on Exhibit No. 1. This tunnel runs northerly, and is on the north side of the gulch which drains to the west. About 20 feet west of the discovery is a tunnel which we designated as No. 24, which runs northerly for about 60 feet. That is the one that is indicated on Exhibit No. 1 as 45. In this tunnel there was a good vein of phosphate rock, 5 or 6 feet thick, and limestone wall all in place. The limestone wall was the hanging-wall of that particular vein. The dip was 30 degrees to the westerly, and a strike of south 5 degrees westerly magnetic. Both of these tunnels I have mentioned, 23 and 24, are on the southerly side of the Arkansas lode, or southerly end, I will say, of the Arkansas lode.

We found near the southerly end line of the Arkansas lode, and probably within the limits of that lode, although we were not absolutely certain, seven tunnels and cuts, all showing phosphate rock with limestone walls in place.

From here we went to the Hickman lode. This is not adjoining the Arkansas, but has its north end line about 500 feet southerly of the Arkansas discovery. I have noted the [316] northwest corner of



(Testimony of Guy Sterling.)

the Hickman was a 4x4 post in mound of earth and stone, scribed 1-2637. This corner was on the south side of the gulch before mentioned, at the southerly end line of the Arkansas lode.

On the northerly end line of the Hickman lode, which is only 50 feet long—that is, the end line is only 50 feet long,—there are two cuts which show good phosphate rock and limestone walls very clearly in place. Phosphate rock veins are shown here 5 or 6 feet thick, and show what appears to be a good grade of phosphate rock, having a strike of south 5 degrees east, and a dip of 27 degrees westerly magnetic.

We next went to what we call cut No. 25, which was at the discovery of the Hickman lode, and we found a vein of phosphate rock with lime walls showing the dip and strike about the same as at above cuts on this lode, the last mentioned cuts. We took sample No. 10 from the discovery. The discovery cut has a face of 5 to 7 feet, and a length of from 10 to 15 feet.

About 300 feet northwest of the south end line of the Hickman we come to what is our cut No. 26. This is about 15 feet long and had a 17 foot face. This shows some thin beds of phosphate rock and shaly limestone walls in place.

We next went to the Wayne lode from the Hickman lode, and the Wayne lode is found to be on the same series of beds of phosphate rock that occur in the Hickman lode, and about one-half mile directly south of the latter. The Wayne lode claim, as well as part of the Hickman lode, is only 50 feet wide, and is staked out as nearly as practicable on [317] the



(Testimony of Guy Sterling.)

outcrop of the phosphate series.

We come next to Tunnel No. 21 on the Wayne lode, which is probably tunnel marked No. 53 on Exhibit No. 1. This tunnel is 20 feet long, cross-cuts the veins, and bears northwest and is about 40 feet. The entrance of this tunnel is about 40 feet northerly of the Wayne discovery. In this tunnel there is shown 7 feet of phosphate rock, with a lime hanging-wall at the portal of the tunnel, and also a little of the hanging-wall in the face of the tunnel. The dip here was 25 degrees west, and a strike of south magnetic.

We went next to the Wayne lode discovery, which we call cut No. 28. This cut is shallow, and shows phosphate rock with a limestone hanging-wall in place. We took sample No. 11.

I noticed that there was a post marked here "Wayne Discovery." From the discovery of the Wayne northerly for about 200 feet to the southerly end of the claim, the outcrop of the series of beds shows very clearly.

Both the Wayne and the Hickman lodes are on the side of the mountain lying easterly of the Montpelier Canyon, and the surface of the ground in general slopes to the west.

The Wayne is traversed or crossed about 450 feet from its northerly end line by a deep gulch draining to the west. That is all of that group.

Q. That ends that?      A. Yes, sir.

Q. You omit the Columbia.

A. Yes, sir; I haven't any notes on it.

Q. Did you make any?      A. Let me see—

(Testimony of Guy Sterling.)

Q. Investigation? [318]

A. Wait just a second, please. I understood you didn't want that to-day, and that is the reason I didn't get it. We took it—no, I haven't any notes in regard to that.

Q. Have you any independent recollection?

A. All I remember is that by following the lode through continuously there on the outcrop, and by means of cuts, diggings and uncovered ground, etc., through to the Wayne lode, I noticed it had the same general characteristics all the way through wherever the lode was uncovered.

Q. This lode you have described is lying within the side lines of the lode claims? A. Yes, sir.

Q. Is it in its course and strike all the same lode throughout the length of these claims?

A. Yes; I believe it is absolutely.

Q. At one place you have referred to the lode being folded? A. Yes, sir.

Q. Where is that now?

A. That is in the Arkansas lode and Mt. Pleasant lode, where the lode or beds in their dip are practically parallel with the surface, or they are very near the surface, so that every little undulation there has made a corresponding undulation or a fold and bend in the beds on these particular claims, and of course they are broken and cracked, but the general dip and general strike, wherever the veins are exposed there, is practically the same as it is on the other claims. In other words, these folds are purely local.

Q. At what depth was the vein exposed there at

(Testimony of Guy Sterling.)

that place? A. You mean at the surface? [319]

Q. Yes.

A. Well, except in the side of the mountain on the southerly end line of the Arkansas lode, it was not necessary to go very deep on the Arkansas and Mt. Pleasant lodes to find the vein, because they lie near the surface, as I said before, practically parallel with the surface.

Q. Describe generally the topography, if you please.

A. This Exhibit No. 1 gives a good general idea of it. The characteristic or salient features of the topography are the ridge which shows there running generally southerly, parallel with the lode and westerly of the lode, through section 31, and then there is the Montpelier Canyon running southwesterly along between the Overton lode and Mt. Pleasant lode. Then we cross the canyon, and then you come to rather steep rolling ground, upon which the Arkansas and Hickman lodes are located, and all of this ground slopes of course in general towards the Montpelier Canyon. Now the mountains up and around the Obey lode are pretty high, but the ground where the Arkansas and Hickman lodes are is not so high.

Q. What was the object or purpose you had in making your examination?

A. Well, simply to determine whether the deposit of limestone were rock in place and have in general a dip and strike.

Q. Deposits of what did you say?

(Testimony of Guy Sterling.)

A. Deposits of phosphate rock. Was not that what you asked me?

Q. Yes; but you said limestone. (Question and answer read.)

A. I meant deposit of phosphate rock, having a general [320] dip and strike between walls of rock.

Q. In other words, under the mining law, to what class they belong to? A. Yes, sir.

Q. Class of deposits. How are the walls distinguished from the phosphate vein or lode?

A. You have no difficulty, when you see the two classes of rock, that is the phosphate rock and the limestone walls, speaking of limestone in a general way, with your eye, and distinguishing them.

Q. Different colors?

A. They are of different colors and different textures.

Q. Both? A. Different textures, yes, sir.

Q. Is the line of demarcation between the walls and the phosphate lode distinguishable?

A. Wherever they are in place and are unbroken or undisturbed, the line of demarcation is very clear.

Q. From your examination what do you say as to the phosphate lode having the same character of hanging-wall throughout the entire length of the claim?

A. Yes, sir; it has. The series has a well defined hanging-wall, easy to see and follow, and its relation to the series is easy to determine, and generally the



(Testimony of Guy Sterling.)

outcrop appeared quite prominently in a great many places.

Q. And what is the hanging-wall?

A. In general it is a silicious, cherty limestone, and in some cases contains a good many fossils.

Q. What is the footwall?

A. The footwall is also a limestone, and while it varies [321] in character, it is generally hard and cherty.

Q. Silicious?

A. Yes, sir; chert pertains to anything silicious.

Q. From your examination were you able to determine the breadth between the walls of the phosphate lodes?

A. You mean between the walls of the series?

Q. Yes.

A. There was only one place on this group, as I remember it, that we were able to make much of an estimate of that, and that was on the Obed lode, and I estimated there near the discovery that the series was at least 60 feet thick, as indicated by the position of the hanging-wall, of the hanging-wall and footwall.

Q. Any evidences of its being thicker at any other places?

A. Well, I can't say there is on this group.

Q. I am speaking of and referring to this group.

A. Yes, sir.

Q. Now, this series, as you call it, just describe with reference to this ground what it is made up of.

A. Well, the series of the veins is simply the beds



(Testimony of Guy Sterling.)

included between the hanging and footwall of the series that I have before spoken of.

Q. Well, you spoke of it generally. Now I am referring to this—

A. Yes; and between this hanging and footwall of the series, as a whole, there are alternately beds of phosphate rock and beds of limestone or shale or quartz, or, I would not say quartz, but quartzy limestone, silicious limestone that form the walls of these individual beds of limestone.

Q. Of what? [322]

A. Individual beds of phosphate rock, so that the whole series consists of a number of beds of phosphate rock and limestone alternating.

Q. The thickness uniform or variable?

A. The thickness varies; the thickness of the phosphate rock runs from 6 inches up to 10 feet, and the grades vary, and the thicknesses of the limestone walls vary, although I don't remember of ever seeing a limestone wall within the series much over 3 or 4 feet thick. They are generally from 1 to 2 feet thick; the limestone walls. Of course I use the word limestone there in a general sense. Those walls vary very much, some of them are almost pure silica.

Q. At the place where you were able to make an investigation from the footwall to the hanging-wall, you did not determine there the thickness of the various strata?

A. No, sir; we could not do it; it was not uncovered, and we could not do it.

Q. It was possible to do it?

(Testimony of Guy Sterling.)

A. Oh, yes; it would be easy to strip it and measure it accurately.

Q. Were you on the placer claim shown on Exhibit 1, outside of the exterior boundaries of the lode claims?

A. Well, only as we found it necessary to go across in going to and from the claims.

Q. And are you able to state whether there is any deposit of phosphate rock found on those placer claims shown on Exhibit 1, outside of the exterior boundaries of the several lode locations? [323]

A. Well, I am not positive, but I think I could see and notice some diggings on the Winfield placer east of the Obed and Obey lodes, which showed a dark material on the dump of the workings there, which was undoubtedly phosphate rock. I am not absolutely sure I am correct in regard to that location. It was either on the Winfield placer, though, or the Colcock placer or on ground that would be east of the Colcock placer.

Q. Which is not known there?

A. It has no name there at all.

Q. As a mining engineer how would you classify the phosphate deposit which you have described?

A. Why, I would classify it as a mineral deposit.

Q. Found in what form?

A. In the form of a—well, it is a calcium phosphate, calcic phosphate.

Q. But in what class of ground?

A. Oh, physically?

Q. Physically.

(Testimony of Guy Sterling.)

A. Why, I would class it as a lode.

Q. Did you find any characteristics of a placer deposit throughout the lode claims?

A. No; I did not, because the only place there were any detached or loose pieces of phosphate rock was where it was right near and practically on the outcrop of the vein, and for that reason was actually a part of the vein, although it was detached from it.

Q. Other than that, it was found all in place in the mass of the mountain, was it? [324]

A. Yes; taken in a broad general way. Of course, as I said, there were here and there little pieces of float that had been moved.

Q. What do you understand as a lode in the sense used by miners?

A. I understand the word lode came from the same—has the same meaning as the word lead. It is simply an extension of the formation in the mine which enables the miner to follow the ore, such as the wall and the dip and the strike, and everything of that kind.

Q. And what do you understand by a placer?

A. Well, in its original and intentional meaning I understand the placer to be a deposit something like gravel, that is purely a secondary deposit, alluvial deposit, and that it has no well defined form or position, and that it contains no mineral in what we call a chemical combination, as a rule, although that don't apply strictly.

Q. You may pass now to the China and Japan, shown on Exhibit "A." When did you make an ex-

(Testimony of Guy Sterling.)

amination of those claims?

A. I went down there November 15th, 1910.

Q. For what purpose?

A. For the purpose of examining the Japan and the China and the Fryerson lodes.

Q. With what object?

A. To determine the characteristics of the formation, and whether they appeared to be properly lode claims or placer claims.

Q. You may describe fully the characteristics and formation and the result of your examination and inspection. [325]

A. I went over there with Mr. Duffield, Mr. Hoff and Mr. Wilson. I found the Japan and China lodes were in the Sublette Range, near Raymond, Idaho, although the claims themselves are in Wyoming.

We commenced on the south end line of the Japan lode, which is found at this end line say about 600 or 700 feet, something of that kind, north of Raymond Canyon. We went first to the tunnel on the southerly end line of the Raymond placer, the southerly end line I should say of the Japan lode, which I understood was on the Raymond placer of the San Francisco Chemical Company, and that this tunnel had been driven by that company. This tunnel had a bearing of north 65 degrees east magnetic, and a length of about 75 feet, and it was cross-cutting about 50 feet of the series of this phosphate rock. Some of the veins were 5 and 6 feet thick. I noticed at the portal of that tunnel, or the San Francisco cuts, I noticed the dip of these veins was nearly verti-



(Testimony of Guy Sterling.)

cal, but they have a little bit of an easterly tendency.

We then went to the Japan discovery tunnel, which was just a little ways north of this last tunnel, and found that the discovery tunnel had a bearing of north 70 degrees east, and a length of about 75 feet, with a cross-cut running to the north of about 15 feet in length. This tunnel cross-cut the series of veins also; and in this tunnel the dip was vertical and the strike of the vein was about north 20 degrees west magnetic. From the drift in this tunnel we took samples from a 5 foot vein of good phosphate rock, [326] and the sample was marked F-1. Coming out of the tunnel I noticed that the cherty limestone series very prominently outcropping on the surface just about above the end of this tunnel. I noticed also that the footwall westerly of the entrance to the tunnel was outcropping, and found the face of this tunnel was in hard, cherty lime, and probably was in the footwall or hanging-wall of the series. All of these veins and walls spoken of in the Japan lode were in place. The discovery I estimated was about 500 feet in elevation above the valley. I saw the notice of the Japan lode at the discovery, and read it over, and it appeared to be all right.

We then went to the China lode, which lies north and adjoins the Japan lode. Near the north end line of the Japan lode and south end of the China, there appears to be a throw or fault or something of that kind in the formation there, so that the dip is no longer vertical as it is shown in the Japan lode, but is about 45 degrees westerly, and the strike of the



(Testimony of Guy Sterling.)

vein there was northeasterly. We found but very little float at the north end of the Japan or the southerly end of the China. It appeared to be covered up by the disintegration of the hanging-wall of some of the series.

At the China discovery tunnel, which is driven mostly in wash, we saw at the entrance of this tunnel a dark streak which was undoubtedly phosphate rock and decomposed. We took there sample S-2. This tunnel is about 20 feet long, running southeasterly, and badly caved, but the rock was in place at the portal. The dip and strike of this rock [327] at the portal of this tunnel was indefinite, on account of being twisted and folded, but it was pretty clear that the dip was westerly and the strike was southeasterly.

About 20 feet above the discovery and easterly there was another tunnel running southeast and about 35 feet long. This tunnel was all in the wash, but at the face there was shaly decomposed phosphate rock, and we took a sample from the face.

We then went to the Fryerson lode—shall I continue—

Q. Shown on Exhibit "B"?

A. Shown on Exhibit "B."

Q. Yes.

A. We went to the discovery first. I noted there that the cherty easterly hanging-wall of the series outcropped very prominently. There has been a good deal of the series there stripped, showing a large exposure of the vein towards the north end of the Fryerson lode, and on the southerly side of what is

(Testimony of Guy Sterling.)

known as York Gulch. We found two tunnels there, which were caved, but the formation of the veins which were stripped, and we found that they had an easterly dip of about 60 degrees. I saw one good 4 foot vein of phosphate rock 50 feet east of the discovery, and from this we took sample S-3. The diggings were on the north side of this York Canyon and belonging to the Breathitt lode.

We went then to the discovery of the Francis placer.

Q. Is that shown on Exhibit "B"?

A. Yes, sir; that is shown here; which was about 50 feet south of the south end line of the Fryerson lode, and there [328] at that Francis discovery I found that the dip or strike was south 30 degrees east.

Q. (By Mr. BUDGE.) State how marked.

A. I did not see it marked at all, Mr. Budge. That was outside of the Fryerson lode.

Q. (By Mr. BUDGE.) I understood Judge Dey to ask you if it was not shown on that map.

A. I thought you said the Francis placer.

Q. No; I meant the discovery.

A. Going south from the Fryerson discovery to the Francis discovery, we did not find any float, that is any phosphate float, but the hanging-wall of the series outcropped nearly all the way, so that there was no trouble in telling what was the course of the vein through the Fryerson lode. When we got to the southerly end of the Fryerson lode we found there what we called Francis Canyon, and on the southerly side of that canyon we saw a good deal of work which

(Testimony of Guy Sterling.)

clearly uncovered and showed the phosphate rock in place.

Q. Did you take the dip and strike there?

A. Yes, sir; we took the dip and strike as we went along, and found it of the same characteristic, having the same characteristics as all these workings before.

Q. Did you travel the intervening distance between the China and Japan and the Freyerson?

A. Not between the lode, not on the lode.

Q. Not on the lode? A. No, sir.

Q. You have not been over that?

A. No, sir; we drove along the road, and the range of [329] mountains is clearly in view all the way along, as I remember it, but of course you could not say absolutely from such an inspection as that that there was nothing whatever to indicate an important break in the formation between those.

Q. You stated that the outcrop was visible?

A. Yes, sir; the outcrop of the hanging-wall and in some places the vein rock.

Q. Is the formation and characteristics in respect to the walls the same that you have described in connection with the claims platted on Exhibit 1?

A. Yes, sir; I should say it was the same general formation.

Q. Readily discernible?

A. Yes, sir; take it as a whole.

Q. Did you ascertain the breadth of the series or lode of phosphate?

A. Well, you mean in the China and Japan?

(Testimony of Guy Sterling.)

Q. China and Japan, yes.

A. I mentioned in my testimony I think there, that there was 50 feet of the series cross-cut in this tunnel at the south end line of the Japan lode. I think there were plain indications there that the series was still wider than that at that point. That was a very good showing there, though of course the hanging-wall was clearly in sight and this easterly wall.

Mr. DEY.—You may cross-examine.

Cross-examination.

(By Mr. BUDGE.)

Q. How long have you resided in Salt Lake, Mr. Sterling?

A. Practically continuously since 1899. [330]

Q. You say you attended some school or university? A. Cornell University.

Q. Cornell University? A. Yes, sir.

Q. Are you a graduate of Cornell? A. Yes, sir.

Q. Of what department?

A. Civil Engineering.

Q. And in what year did you graduate?

A. In 1887.

Q. Did I understand you correctly that you said you had been engaged in mining engineering since 1898? A. Yes, sir.

Q. Now, where have you been engaged in that work? A. In Utah, mostly.

Q. Mostly in Utah? A. Yes, sir.

Q. And in what parts of Utah?

A. Well, nearly every mining district in the state.

Q. Well, by whom?



(Testimony of Guy Sterling.)

A. I could not possibly tell you without getting my books in nine or ten or twelve years of pretty near continuous work in connection with mines and surveying underground and surface workings. I could not tell you all the clients I had.

Q. Can you give us the districts in which you have worked, and the mines you have examined?

A. The Iron Mountain District, the district down at Stateline, the Bingham district, Park City district, the Ophir district, and other districts I have forgotten the names of.

Q. Now, take for example the Bingham district. What have you done in the Bingham district?

A. Oh, I have made a study out there of the formation in regard to the development of mines.

Q. When?

A. The last one I made was about three years ago.  
[331]

Q. When was the first one?

A. I think the first one I made was when I first began work, about 1898 or 1899 probably.

Q. Along about 1899, that was the first work that you did?

A. I think that was the first work I did after I moved out there.

Q. How much of an examination?

A. It was an examination of a group of claims, about seven or eight claims.

Q. How long were you engaged in the work?

A. Well, it was not all examination; it was surveying as well as examining.



(Testimony of Guy Sterling.)

Q. Well, what period of time was covered by your examination? A. Oh, probably two or three days.

Q. Two or three days? A. Yes, sir.

Q. What sort of property?

A. It was a lead and copper, I think, as I remember it.

Q. What was the nature of your examination, purpose of it?

A. Simply to show what the probabilities were there of finding more ore, or finding pay ore.

Q. More ore?

A. Finding pay ore, not more ore.

Q. Finding pay ore?

A. Yes, sir; and studying the formation with relation to the vein system that existed there.

Q. And you say you were engaged in that two or three days? A. On that part of it, yes, sir.

Q. Well, from this have you any distinct recollection as to where you were next employed?

A. No; I have not any distinct recollection. [332]

Q. Can you give us a general idea as to where you were employed after that?

A. I could not do that without going through my books, and going over the history of my life in ten or twelve years' work.

Q. Can't you give us a better idea as to the extent of the examinations you have made as a mining engineer, and the properties which you have examined?

A. I can tell you one, one that I spent a good deal of work on in my capacity as a mining engineer. There was a case between the Colorado Fuel and Iron

(Testimony of Guy Sterling.)

Company and the Walker Brothers in regard to the iron claims down at Iron Mountain in this state. That was a controversy with regard to whether these claims were placer or lode, and it lasted, I think, about three years. I think that I spent altogether four months' time on that. The greater part had reference to the geology of the situation.

Q. The geology of the situation. What has been the extent of your study in geology, Mr. Sterling?

A. Well, it has been—you mean in the field or theoretically?

Q. No; theoretically first.

A. First the usual course in geology was taken in the civil engineering course. Then I did some—

Q. Can you define that more particularly?

A. I took some lectures on geology by the Professor of Geology at Cornell.

Q. Is that all there was of it?

A. That is all there was to that part of it. [333]

Q. And covering what time?

A. Well, I suppose that took up, that particular part of it probably took up one hour and one or two terms work, but I have forgotten exactly. In addition to that I did some—

Q. How long were the terms?

A. I don't remember.

Q. Did it cover more than one year?

A. I have forgotten. I think the term was about three months, two months, something like that.

Q. Two or three months?

A. Yes, sir; call it four months altogether of lectures.

(Testimony of Guy Sterling.)

Q. Well, is that the extent of your geological study, theoretical study?

A. No; I have been reading continuously ever since I have been in the practice of engineering.

Q. Give us an idea of what you have studied as a geologist.

A. Well, I have read the different geologists.

Q. Give us the names of these text-books.

A. Le Conte.

Q. What name?      A. Le Conte and Dana.

Q. Dana?

A. Yes; and I have read a good many Government reports.

Q. Can you give any more definite information than that?

A. I think that is about as definite as I can put it.

Q. Have you studied minerology?      A. Yes, sir.

Q. In what work?

A. We used at Cornell Dana's Mineralogy, and took a course in blow-pipe analysis.

Q. What analysis?      A. Blow-pipe analysis.

Q. Blow-pipe analysis. Now, is Dana considered a standard work on mineralogy?      A. Yes, sir.

Q. And on geology?      A. He is. [334]

Q. And did you study them, make a complete study of those works?

A. No; I don't suppose complete, I would not undertake to say whether I have made a complete study or not; I would not know.

Q. Have you read them through?

A. I have at different times, yes.

(Testimony of Guy Sterling.)

Q. Just simply read them at different times, and different portions of the work at different times?

A. Yes, sir.

Q. And that is the manner in which you have studied those works? A. Yes, sir.

Q. Did you ever take any course in mineralogy?

A. I told you a minute ago that I took a course in mineralogy at Cornell.

Q. I didn't understand you. Then I understand you to say you took a course in mineralogy?

A. Yes, sir.

Q. Well, is that the course in geology to which you have referred?

A. No; that was a course in mineralogyl, and it included the blow-pipe analysis I have just mentioned to you.

Q. And what period is covered by that?

A. I am not positive, but I think it was probably two terms.

Q. Two terms in mineralogy?

A. I would not be sure about that; it might have been but one term. I don't believe it would be more than one term.

Q. One term. Any other works on mineralogy?

A. Oh, I have consulted a number of works, but I don't remember the names of them of course. In my work as I have gone along I would consult those works, but I did not make any pretense to try to memorize everything in the book from one [335] end to the other, or anything of that kind.

Q. I didn't ask you that. I asked you what you

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made a study of, and you know whether you made a study of the books, don't you?

A. I can say that I consulted them. I don't know whether you would interpret that as study of them or not.

Q. I am asking what your interpretation is.

A. I don't call it a study of the book. I call it a study of the subject.

Q. All right. A study of the subject as given in the book. Then have you made a study of any particular subject, that is the study of mineralogy as laid down in any particular book, other than what you have given me here?

A. Only as I have studied them when some question came up that I wanted to investigate, when I would consult every book that I could get hold of on the subject.

Q. But other than what you have given, you have pursued no continuous course of study for any particular period?

A. No; I have not made a specialty of mineralogy.

Q. Or a specialty of geology?

A. Nor a specialty of geology

Q. And when you say that you have studied Le Conte and Dana, it has simply been in the manner which you have indicated at odd times, and when you were interested in a particular subject?

A. No; I at one time read both of those books from cover to cover, but I don't mean by that that I never had occasion to consult them afterwards.

Q. I know. Now, do you remember how long ago that was?



(Testimony of Guy Sterling.)

A. Well, probably at various—probably twelve or fifteen years ago when I read the books clear through. [336]

Q. And you have consulted them from time to time since? A. Yes, sir.

Q. Now, can you give us any other information as to your work as a geologist, other than what you have given us, the Bingham examination and the Iron Mountain examination, and what about your Park City experience?

A. Well, that consisted of surface and mine surveys and study.

Q. I am just confining it. Mr. Sterling, to your work in geology.

A. And the study of the formation with reference to the development of mines.

Q. Yes; that is what I want.

A. That is all that amounted to.

Q. Well, what period was covered by that?

A. I don't remember distinctly.

Q. Have no recollection at all?

A. Oh, I know that it was not twenty years ago, and it was not two years ago.

Q. I say, how long were you engaged in that work?

A. Oh, altogether it was probably—you mean in the field or in the office?

Q. In the field.

A. Well, I really could not say, but I should think probably about a month.

Q. One month. Where else have you worked in the field?

A. As I have told you, I worked in all of those min-

(Testimony of Guy Sterling.)

ing camps, practically all of them.

Q. Give us something a little more definite than that as to the time you spent in each one of them.

A. I cannot give it to you definitely, nor even approximately definitely, because I don't have any recollection of the matter. [337] I never made any attempt to keep any track of it.

Q. Well, calling your attention to the Ophir district, what about that?

A. Well, I suppose that I probably spent, probably two weeks altogether there in examination of the geology, etc., and with reference to the mining developments.

Q. What about the Tintic district? Been down there? A. Yes, sir.

Q. How long?

A. It has been a good many years since I have been down there.

Q. Well, how long were you engaged in the study of the geological conditions when you were there? How long have you studied them geologically?

A. I really can't say, Mr. Budge. I can guess if you want me to.

Q. I don't want you to guess particularly, but haven't you some more definite idea than you have given us, as to the time you spent in Tintic?

A. No; I have not.

Q. On how many occasions have you been employed to go down there?

A. I can't tell that without guessing. I will guess on it if you wish me to.

(Testimony of Guy Sterling.)

Q. You can't say anything more about it, than a dozen times?

A. I know from my experience that in things of that kind there is innumerable isolated cases that I forget all about and which I would not remember now, and cannot make any estimate of the time I was there that I spent on that particular thing.

Q. Let me ask you this. Have you been in the Tintic Mining District for the purpose of studying the geological conditions on innumerable occasions?

A. No, sir. [338]

Q. On how many occasions?

A. Well, that is what I tell you I can't tell you.

Q. Approximately half a dozen, for that purpose?

A. I should say certainly a half dozen, but I don't remember distinctly.

Q. Do you remember the properties?

A. I only remember one or two.

Q. Just one or two, and what kind of properties?

A. They were lead and copper, copper mines, and whatever ores there are down there.

Q. And those that you remember, how long were you engaged in?

A. That is just what I told you I could not tell you.

Q. I say as to those two or three you now remember, can you give us any idea?

A. No; I cannot. It would seem like a small matter, to look at it now. It might have taken me several days to form an opinion that I could express in five minutes.

Q. Now, were there any other districts than those

(Testimony of Guy Sterling.)

you have mentioned, Park City, Ophir, Bingham district, and Tintie?

A. State line, didn't I say?

Q. I think perhaps you did say State line. How long were you down there?

A. Well, I made a good many examinations down there in connection with my own surveys. I would not undertake to put any estimate on the time. I am satisfied now if I undertook to make an estimate of the time it would be erroneous, because I don't remember the details of the work.

Q. Do you remember the particular properties you visited there?

A. I only remember one or two, I know there were a good many that I cannot remember the names of except two. [339]

Q. Can you give any idea as to the time you spent on those you do remember?

A. No, because it was a number of different visits. For instance the Johnie mine, I suppose I visited that mine a dozen times— Now, that is merely a guess, but every trip I would probably spend a day or two, but I would not spend all the time on that one particular mine. I would not attempt for a moment to make any estimate of the time I put on it.

Q. Any other district?

A. Well, I remember one more district out here at Lucin, if I remember the name right.

Q. How long were you out there?

A. Well, I suppose I spent perhaps altogether out there about two weeks. I happen to remember that,

(Testimony of Guy Sterling.)

because it is a little more recent.

Q. Two weeks?

A. Probably two weeks on the main examination.

Q. By the way, what was the character of this formation out at Stateline?

A. That was all eruptive and igneous rock.

Q. And at Lucin?

A. Lucin; that is limestone and igneous rock too.

Q. Now, what about the deposit at Ophir. Did you tell us what that was?

A. That was limestone and porphyry dikes, etc.

Q. The limestone you say at Ophir was a limestone deposit there?

A. I said limestone and porphyry dikes.

Q. Of what age was the limestone? Do you remember?

A. Oh, it is carboniferous, but I don't remember with any great exactness as to that.

Q. How about Lucin and Stateline?

A. That is the same, undoubtedly the same formation.

Q. Now, would you say that your work since 1898 has been principally as a geologist? A. No.  
[340]

Q. You would not? A. No.

Q. What has it been principally?

A. Well, I would not say; it has been principally either mining or civil engineering; it has been in both.

Q. Been in both?

A. And it probably has been more mining than civil engineering, but that is a matter I would not



(Testimony of Guy Sterling.)

undertake to be definite about. I have been in both lines of work.

Q. Your time has been devoted in your effort along these two lines, has been sort of broken up during this period?

A. I would not call it broken up. It is different lines of work.

Q. You have had different kinds of work. You have not pursued for any particular period the work of geologist, or for any particular period the work of a mining engineer, have you?

A. No; I have taken them just as they came.

Q. Now, all these mines that you have examined—well, I will ask you whether all those mines that you have examined prior to 1910 were metallie mineral mines? A. Oh, no.

Q. What, for example?

A. Do you include iron in that?

Q. Yes.

A. Well, of course, I have examined this phosphate deposit and these phosphate lodes, I should say, beginning on them in 1906.

Q. Well, other than phosphate?

A. I think not, unless it was coal.

Q. Unless it was coal. To what extent have you examined coal and studied it as a geologist?

A. Not very much.

Q. Very limited study?

A. Well, I don't know what you mean by very limited, but I have not studied it very much.

Q. Well, what period of time then?

(Testimony of Guy Sterling.)

A. I have forgotten exactly when it was that I made my examinations in that, but it was simply an examination of the formation, appearing [341] around Price and in that general vicinity.

Q. Is that the only coal work?

A. That is the only coal work that I ever did.

Q. How long ago was that?

A. Well, as I say, I don't remember distinctly; I think probably about six years ago.

Q. What was the extent of your examination? What period of time did it cover?

A. I was in the field there I think about a week or ten days. I don't remember distinctly.

Q. Now, Mr. Sterling, what districts outside of the State of Utah have you performed work in as a geologist?

A. Well, there is a part of this Lucin district—that is of no importance, but you asked that question, and I will answer the question, that a part of Lucin district is in Nevada, and a part of the State line district is in Nevada, and I have been over of course with reference to these phosphate claims in Wyoming and Idaho, but I don't remember of any others outside of Utah, except some work I done in Colorado on silver mines up around Silverton.

Q. When was that?

A. I cannot give you the year.

Q. How long ago, about?

A. I don't know. If I could I could tell you the year.

Q. Can you say within a dozen years of the time?

(Testimony of Guy Sterling.)

A. Yes, sir; it has been within the last twelve years.

Q. Was it more than five years ago?

A. I think it was.

Q. How long were you there in Colorado?

A. Oh, I was there a number of times, probably altogether about, on the ground, probably about eight or nine days.

Q. And no others that you now think of?

A. No; I don't remember of any others. [342]  
Now, I don't mean to say there are not any others. I simply don't remember them. I don't call them to mind.

Q. Now, calling your attention to the study of phosphate rock, what has been the extent of your study of this deposit? Just give us the details.

A. Well, I cannot give you any details. It would require me to remember every move and thought I had in regard to the subject since 1896. I cannot do it, anything of the kind. As I told you, I simply tried to find all the information that was published upon the subject, and have gone into the chemical and geological features of the phosphate rock formation and geology as thoroughly as I could.

Q. Is that the best statement you can make?

A. That is the best statement I can make. I will go further and say I have studied it in the field, and made a couple of reports to the Government on the matter, and acted as a witness once in a matter in connection with a suit between the State of Utah and the Bradley Brothers of Boston. I think that

(Testimony of Guy Sterling.)

is practically all I have done on that, in a general way.

Q. Now, you say you have attempted to read all that has been published with reference to phosphate rock?

A. I should not say I attempted to read it all; I attempted to find it all.

Q. Find it all? A. So that I could read it.

Q. Well, what have you read?

A. Well, it has not been a great deal. I could not tell you all I have read.

Q. Tell us something you have read.

A. I have looked up what there was from time to time, although I don't remember distinctly now, what there was in Dana on the subject, and what there was in Geikie on the subject. [343]

Q. Well, what others have you read?

A. I really don't remember anything else, except the chemistry of the subject which I looked up, a number of different chemistries.

Q. Can you give us any—can you tell us, Mr. Sterling, of any particular work on phosphate rock that you have read?

A. Well, it seems to me I have given—of course you mean those—I have read, those two books.

Q. Tell us what they are.

A. One here is Bulletin No. 430.

Q. Bulletin on what?

A. I am just going to give you that. Of the United States Geological Survey of 1909.

Q. Yes.



(Testimony of Guy Sterling.)

A. On Phosphates, by S. H. Gale and R. W. Richards and Blackwelder; and then there is another one, Investigations relating to Phosphates and Phosphorus, by the United States Geological Survey in 1906, from Bulletin 315. Now, I have seen some others, but those are the only ones that I have read, I think.

Q. Who is that last report written by?

A. It does not say.

Q. Doesn't it?

A. Not on the cover here. Wait a minute. Maybe it does inside. Yes, it says by F. B. Weeks and W. F. Ferrier.

Q. Now, any other?

A. I say that is all the Government reports I remember reading, although I have seen some others, and may probably have dipped into them a little bit, but that is all I remember of reading.

Q. Now, calling your attention to the work written by Mr. J. C. Branner, on the Phosphate Deposits of Arkansas, have you read that? [344]

A. No. Now that you mention Arkansas, I do remember a book I glanced through, written by Penrose and Shaler. That is a government publication. I looked it through, but I have not made any effort to commit it to memory, or anything of that kind.

Q. Haven't read Branner?

A. I don't remember it. I would not say I had not, but I don't remember it.

Q. You don't remember that you have? A. No.

Q. Have you read Canfield's Phosphate of Lime &



(Testimony of Guy Sterling.)

Iron Ore Beds?

A. I don't remember of reading it.

Q. Have you read Copp's Geological Sketch of the Florida Phosphates?

A. I don't think I have. I may have.

Q. Have you read Doll and Stanley Brown on Miocene and Pliocene of the Gay Head Martha's Vineyard Phosphates? A. I don't remember.

Q. Have you read Day's Phosphate Rock of South Carolina?

A. Was that a Government publication?

Q. No.

A. No; I don't think I have read it then. I could not tell you whether I have or not. I have looked in so many in the last six or seven years I would not for a moment tell you what I had and had not read.

Q. You say you read Shaler?

A. I looked through that. I remember distinctly of looking through that.

Q. Was it on the South Carolina phosphates?

A. I think it was an attempt probably to practically cover the whole phosphate question in the whole world at that time.

Q. How long ago was it when you read that?

A. Oh, I read it three or four years ago, and I glanced [345] through it a few days ago.

Q. Have you read Safford on Phosphate Rock in Tennessee? A. I don't remember it.

Q. Have you read Shepard on the occurrence of Nodular Phosphates in South Carolina?

A. I may have; but I don't remember it.

(Testimony of Guy Sterling.)

Q. You haven't any recollection, have you?

A. I may have, but I don't remember it.

Q. Can't you answer my question?

A. For I don't remember.

Q. You say you don't remember that you have?

A. I can't, if I don't remember.

Q. Have you read Shepard on the Origin of Phosphates in South Carolina?

A. I may have, but I don't remember.

Q. Smith on Phosphates and Marls of Alabama?

A. I may have, but I don't remember.

Q. And Smith on Cretaceous Phosphates in Alabama? A. I may have, but I don't remember.

Q. Have you read Smith, Lawrence & Jackson on Phosphate Rocks of Florida?

A. I don't think so at all, but I don't remember.

Q. Stubbs' Phosphate Rock of Alabama?

A. The same answer.

Q. Stubbs' Report of Phosphates in Alabama?

A. The same answer.

Q. Wyatt's Phosphates of Florida?

A. The same.

Q. Wyatt's Phosphates of North America?

A. The same.

Q. Wyatt on the Phosphate Occurrences of Florida, a report to the United States Commissioner of Labor in 1903?

A. No; I don't think I have read that.

Q. As I understand it, the extent of your studies from reading which has been done on phosphates is confined to what you [346] might have read in

(Testimony of Guy Sterling.)

Bulletin 430-H, and that bulletin by Weeks and Ferrier and Penrose and Shaler?

A. I have spoken of Le Conte and Dana, haven't I?

Q. I did not understand you to say Le Conte. You may have said it, however. If you did we will include those.

A. And a great many chemical books on the subject.

Q. Well, all right, what are they?

A. As I said before, I don't remember the different—all the names of the different chemistries, but I remember consulting a good many chemical books in regard to phosphate rock.

Q. Tell us who they are. A. I can't remember.

Q. None of them?

A. Well, I think Witthouse was one.

Q. Who else?

A. And an old chemistry called Cook's Chemical Philosophy.

Q. On Phosphate?

A. I read that part of chemistry that applies to phosphate rock, phosphates and phosphorus.

Q. And phosphorus. That is something in your general study of chemistry?

A. No; I say I looked this up when I was studying this phosphate rock question.

Q. In what book?

A. I made special reference to that in that report.

Q. Any other books?

A. And I think Remsen's Chemistry. *g*